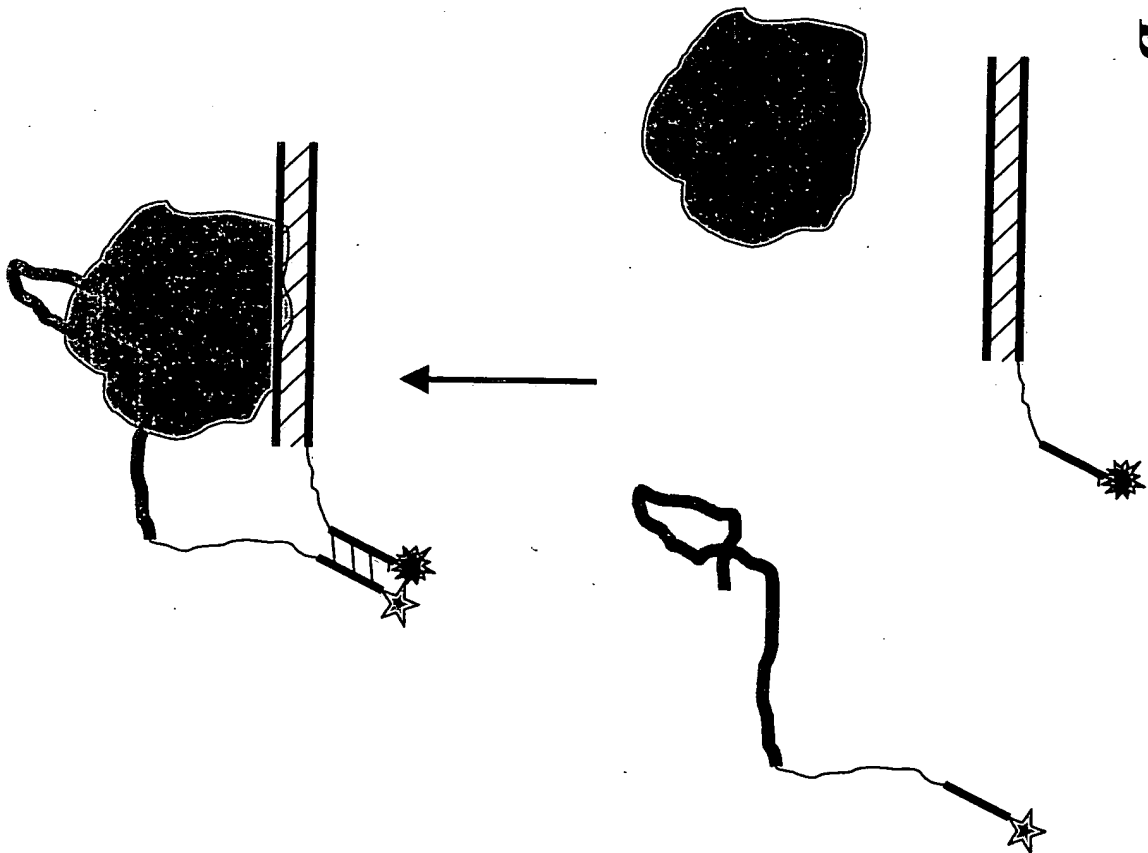
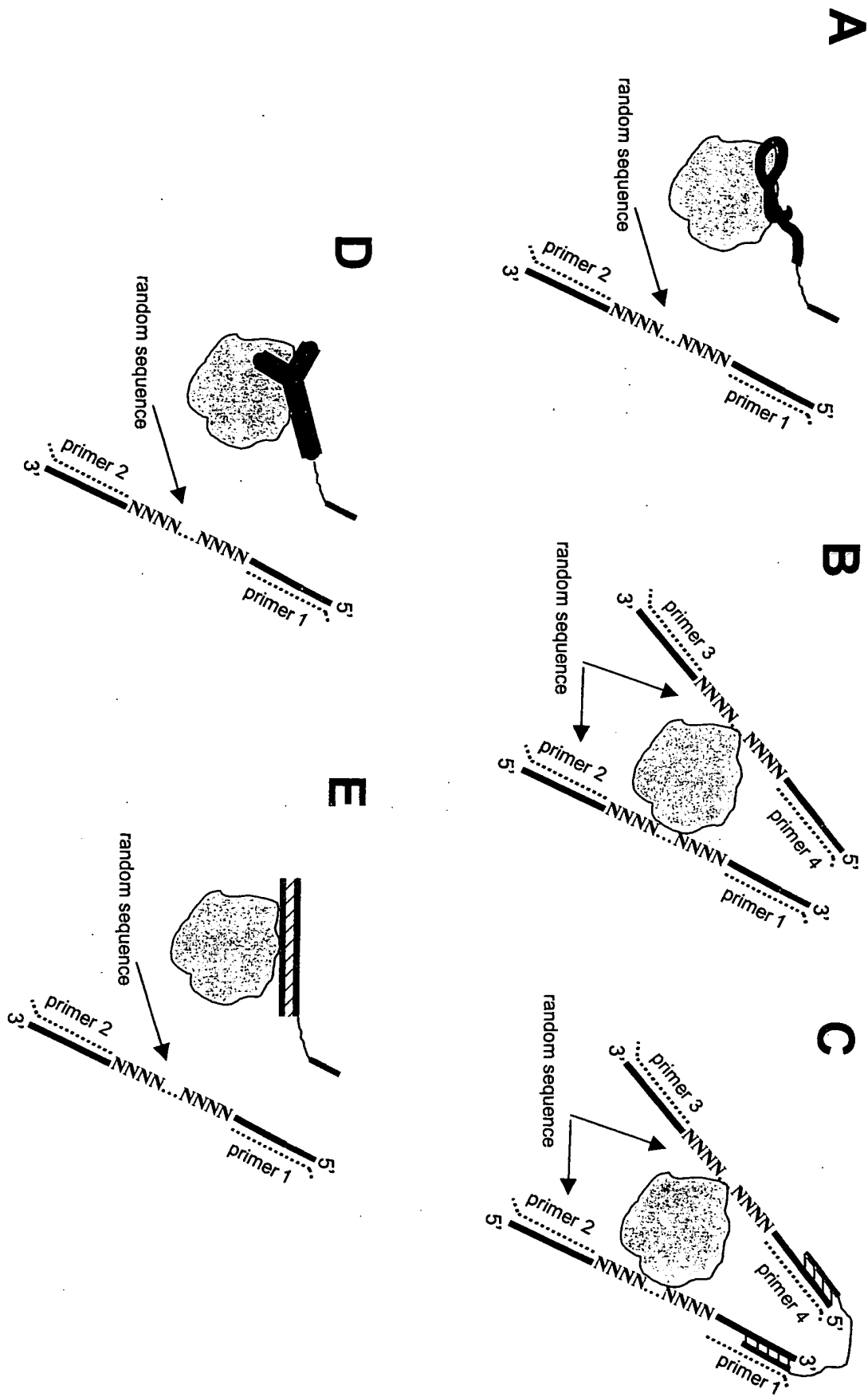


A



BEST AVAILABLE COPY

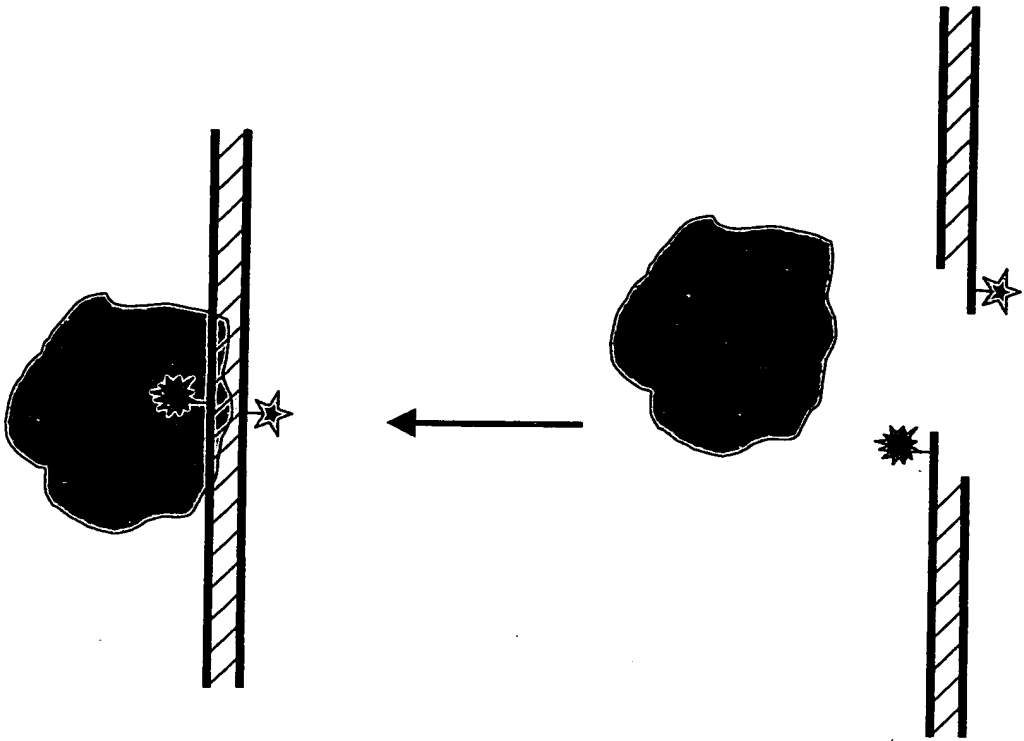
Figs. 2A-2E



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Figs. 3A-3B

A



B

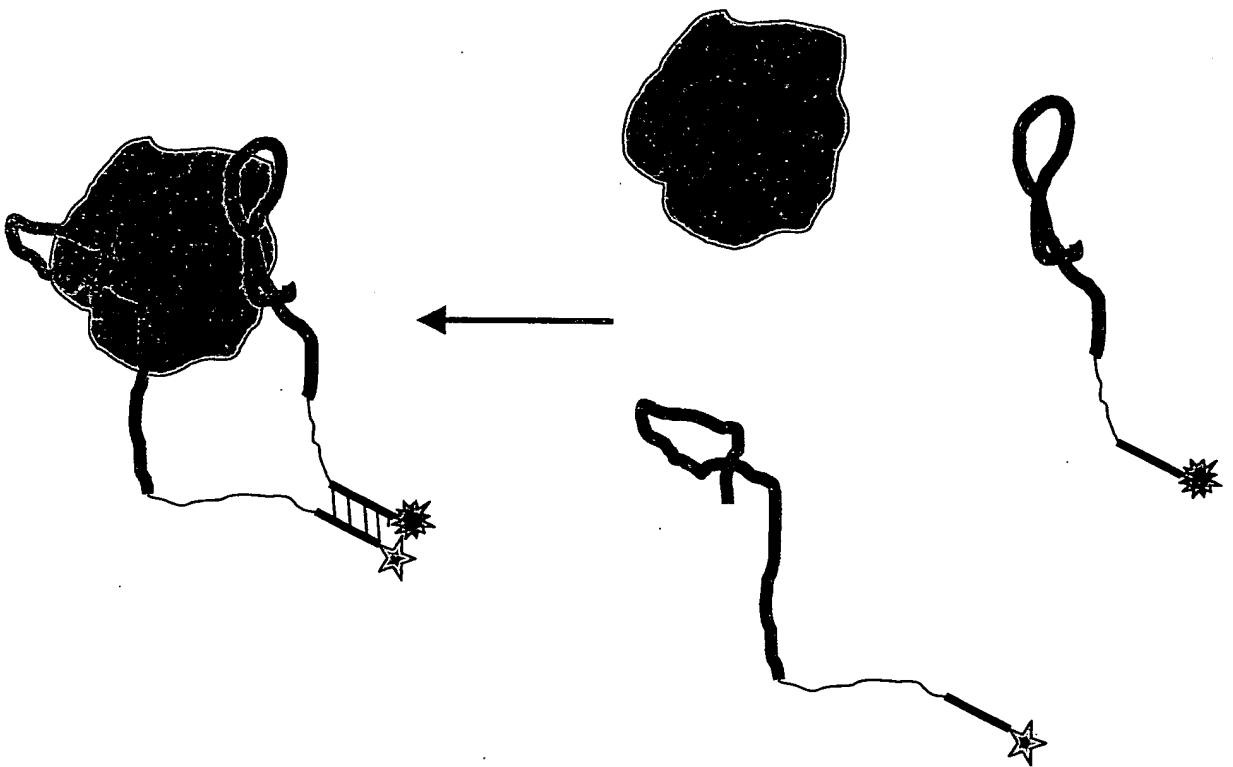
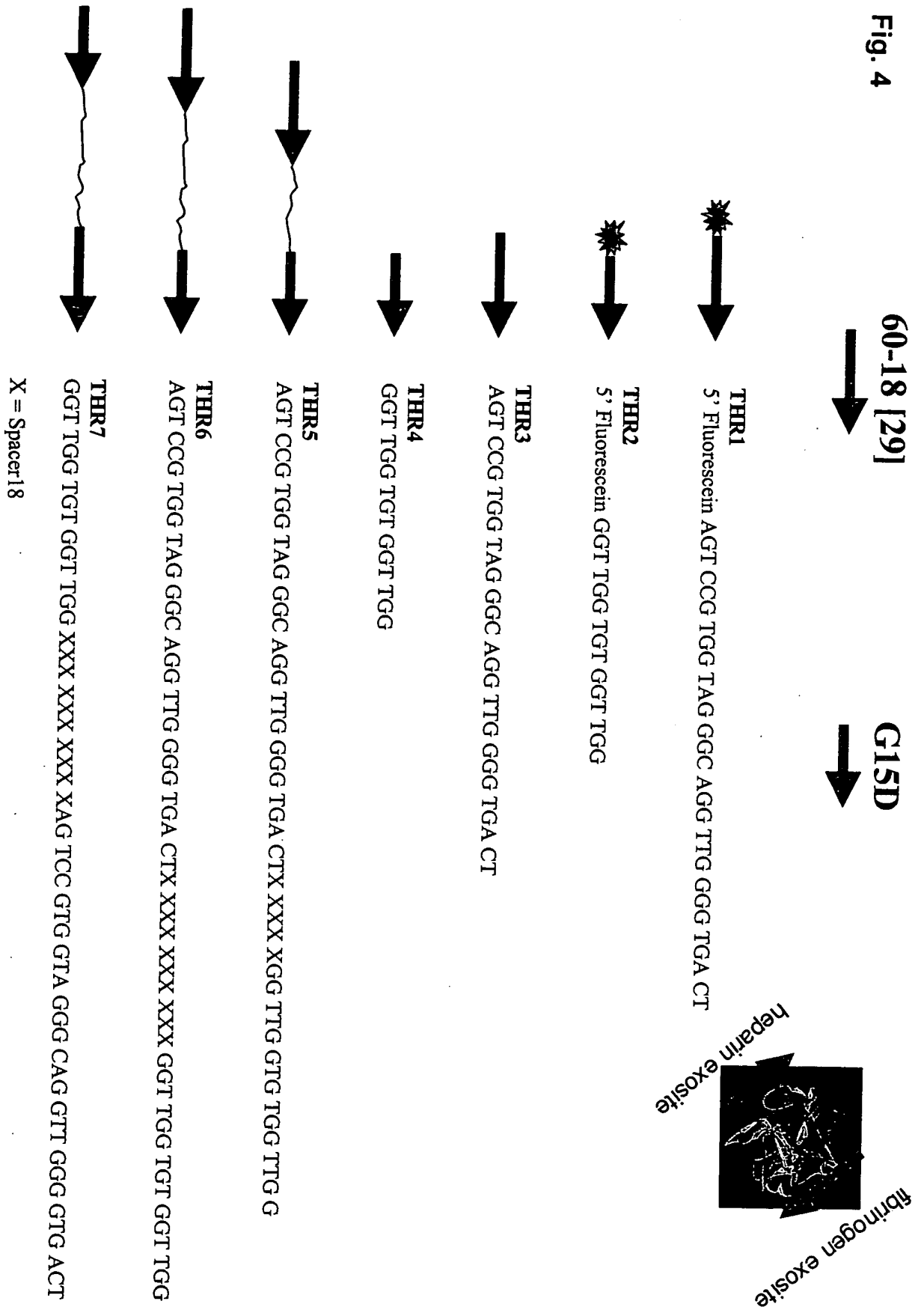
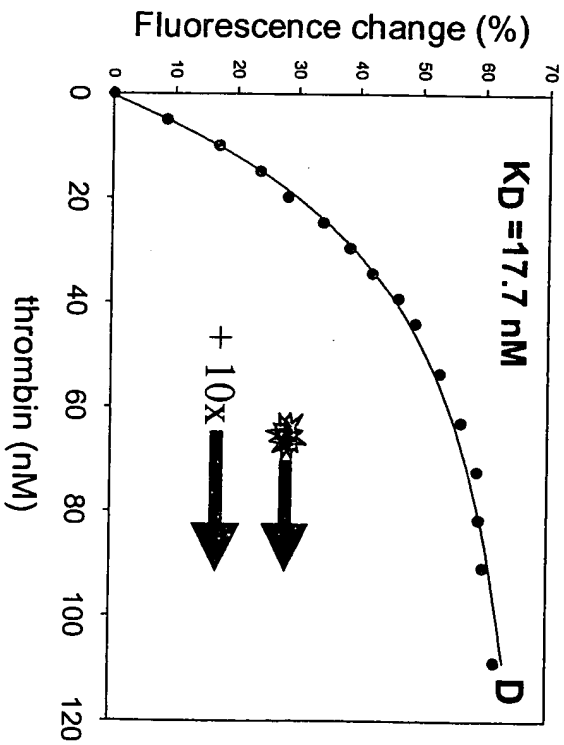
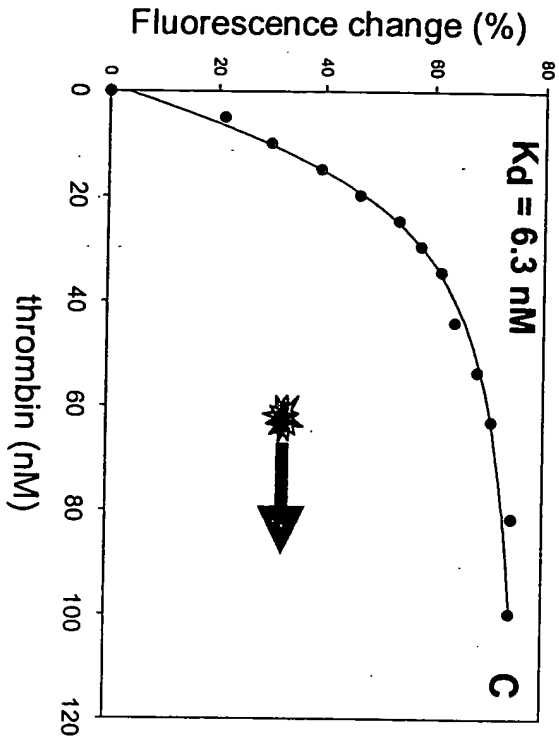
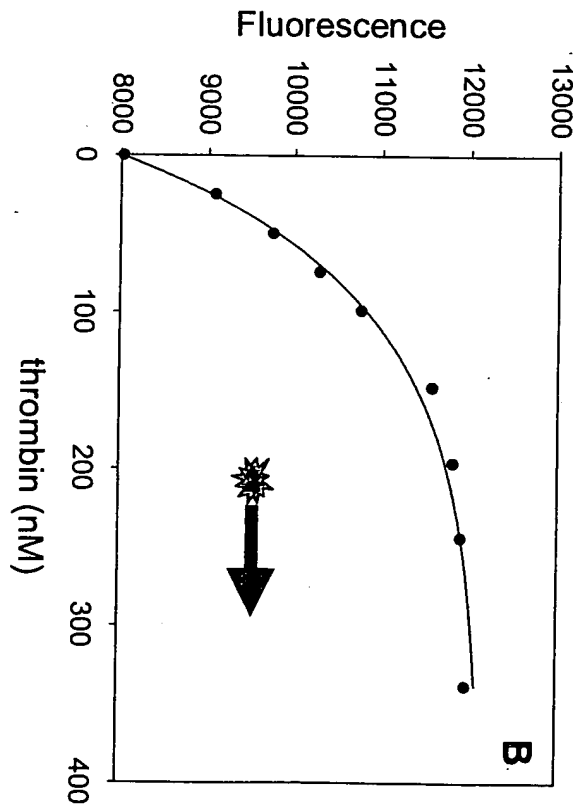
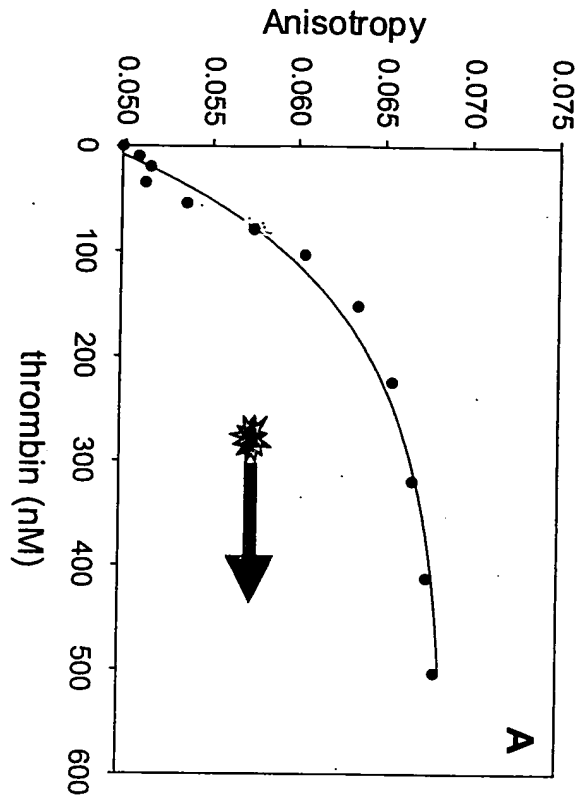


Fig. 4



Figs. 5A-5D



Figs. 6A-6D

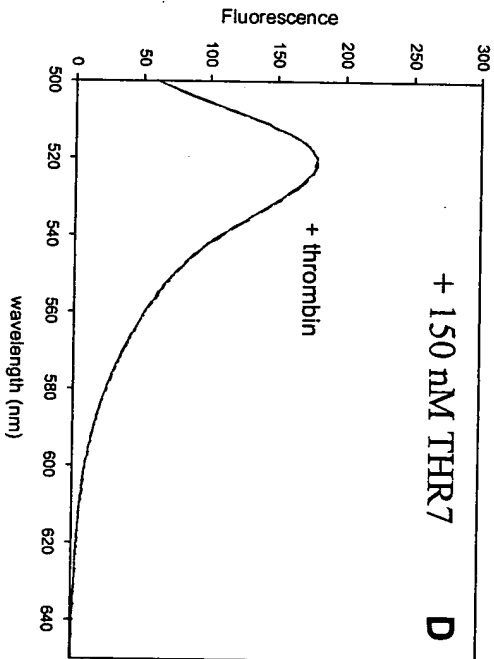
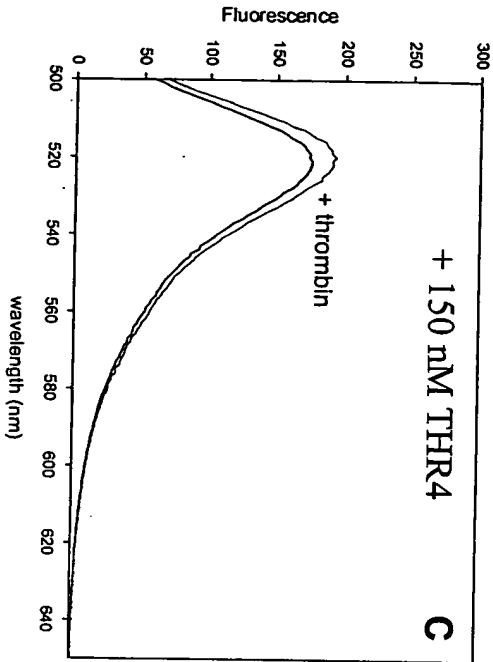
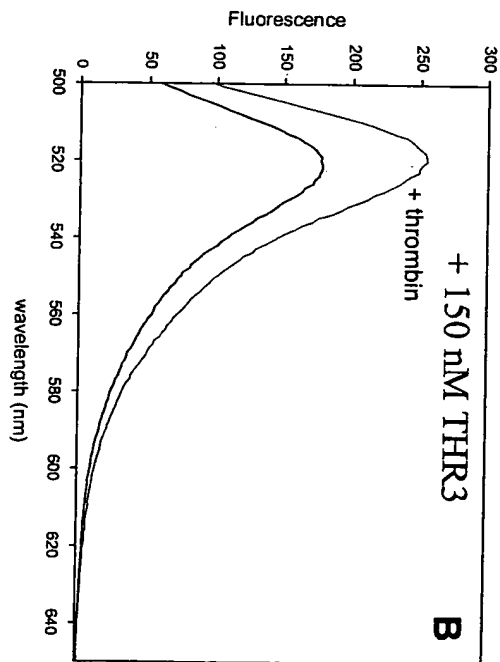
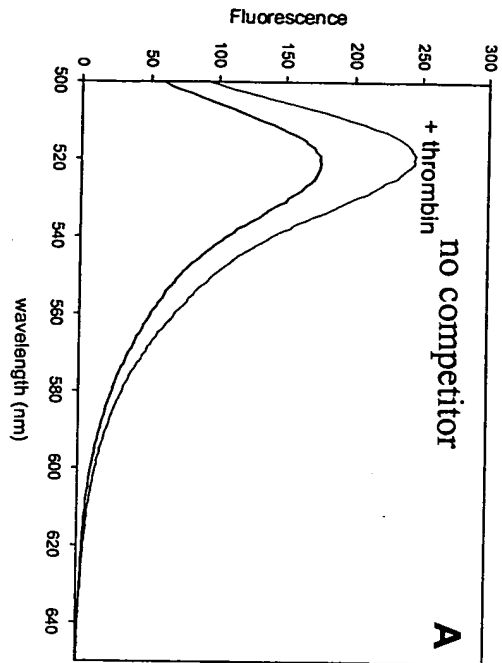
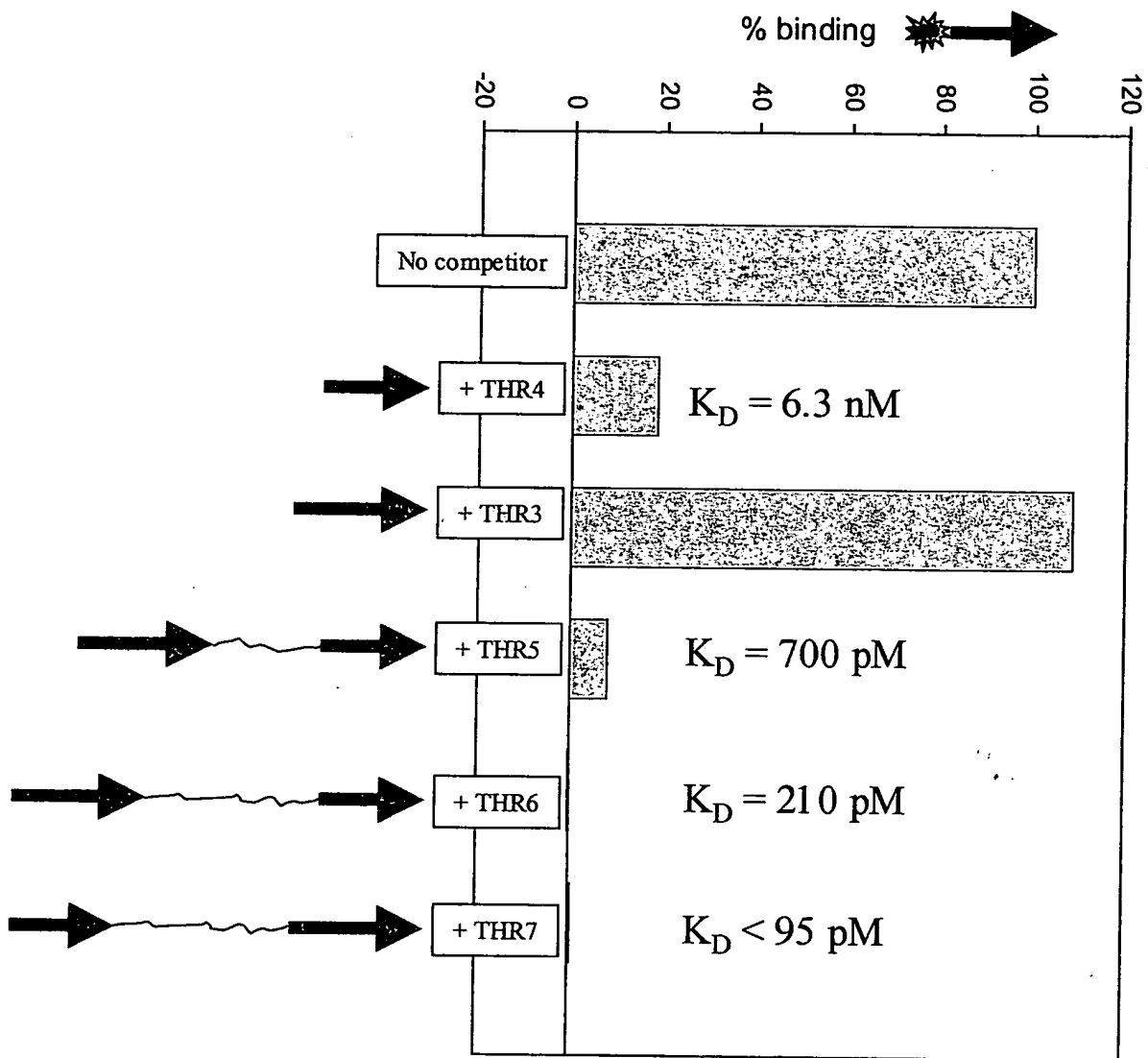
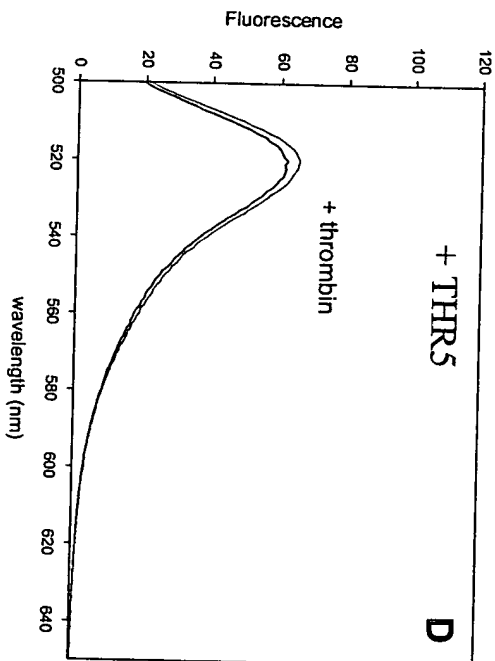
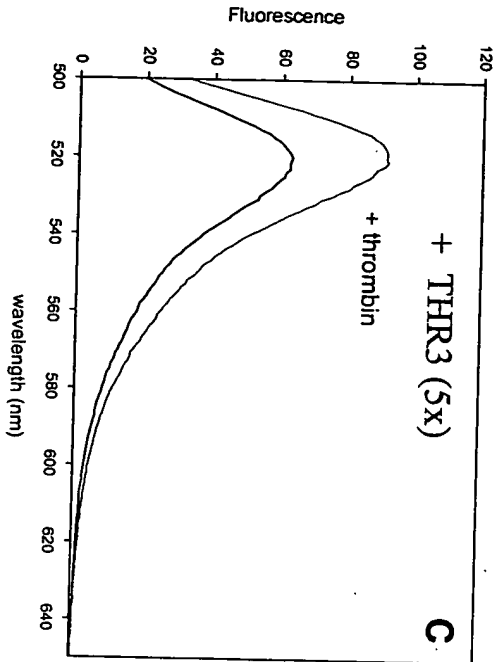
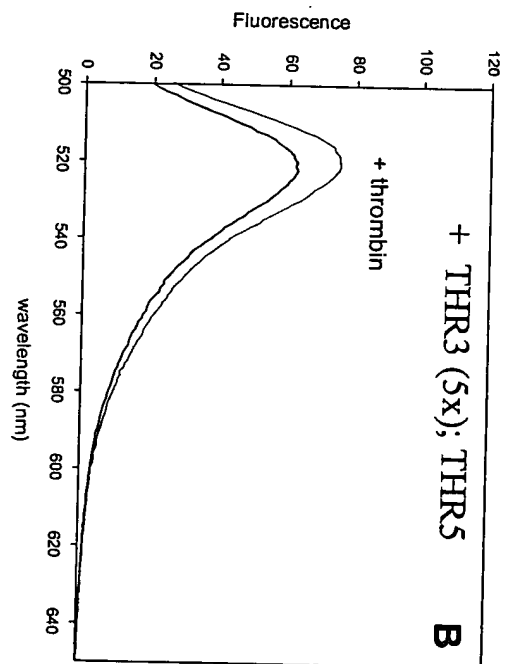
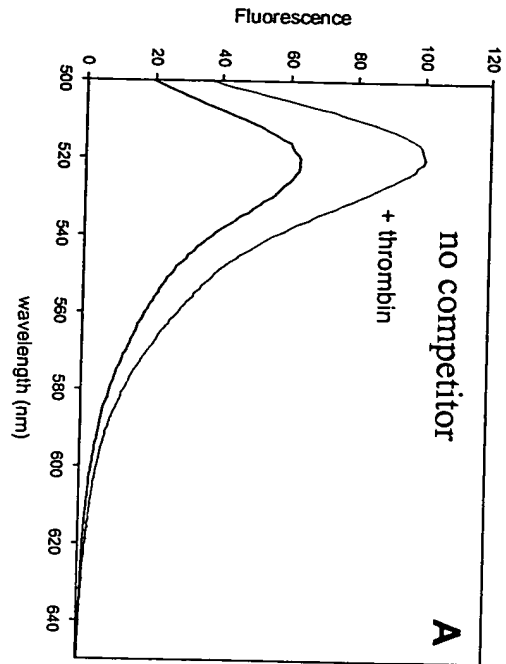


Fig. 7

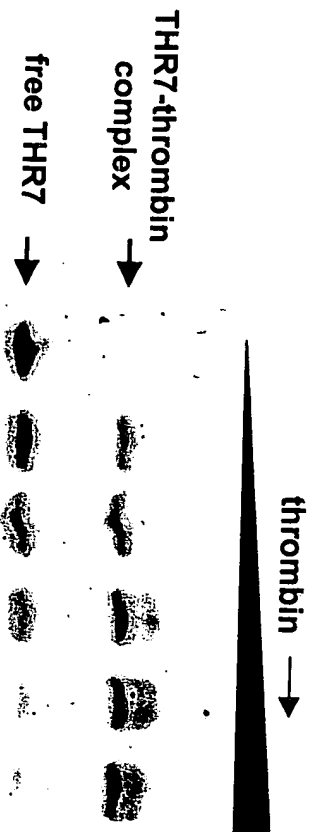


Figs. 8A-8D



Figs. 9A-9B

A



B

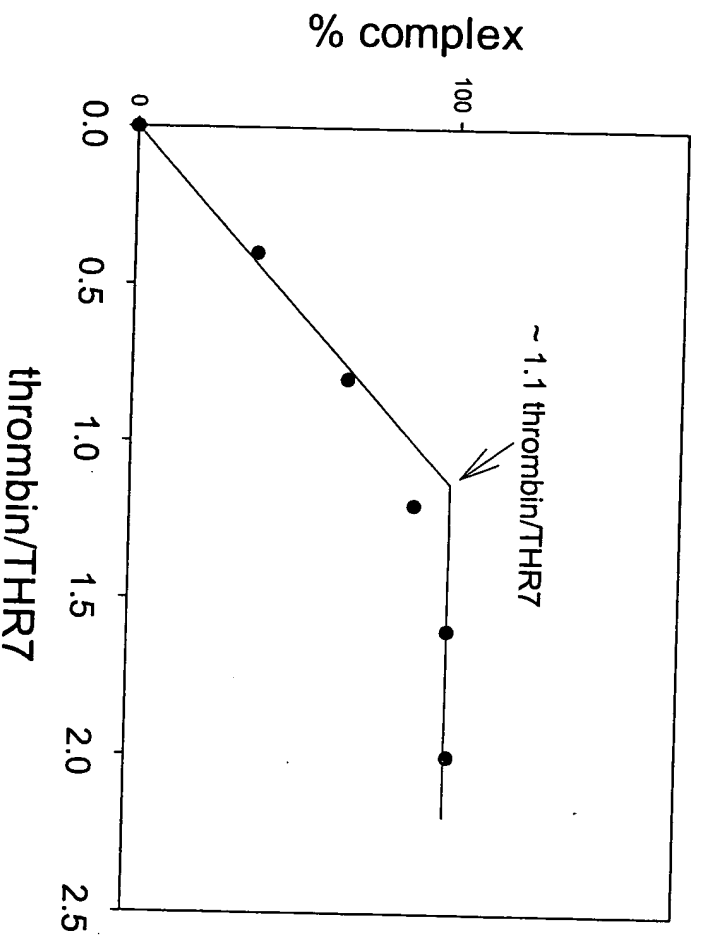
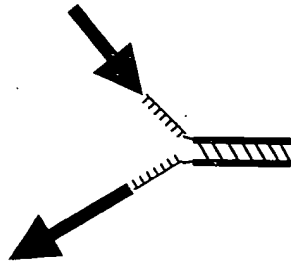


Fig.10

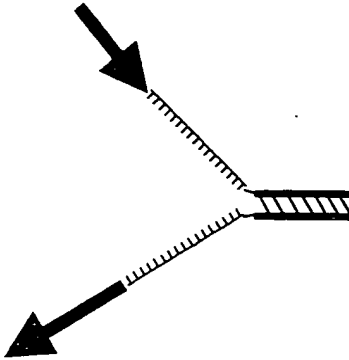
60-18 [29]



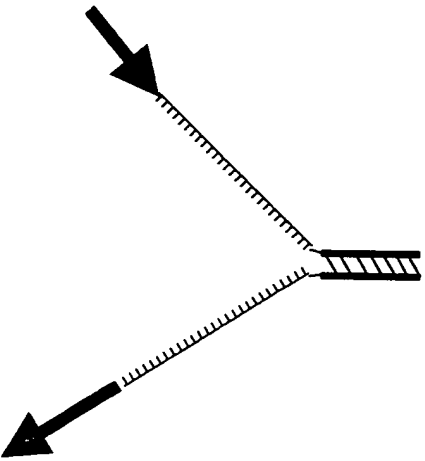
G15D



THR14
GGT TGG TGT GGT TGG TTT TTT T CTG TCG TTA GTG AAG GTT
THR15
AAC CTT CAC TAA CGA CAG TTT TTT T AGT CCG TGG TAG GGC
AGG TTG GGG TGA CT



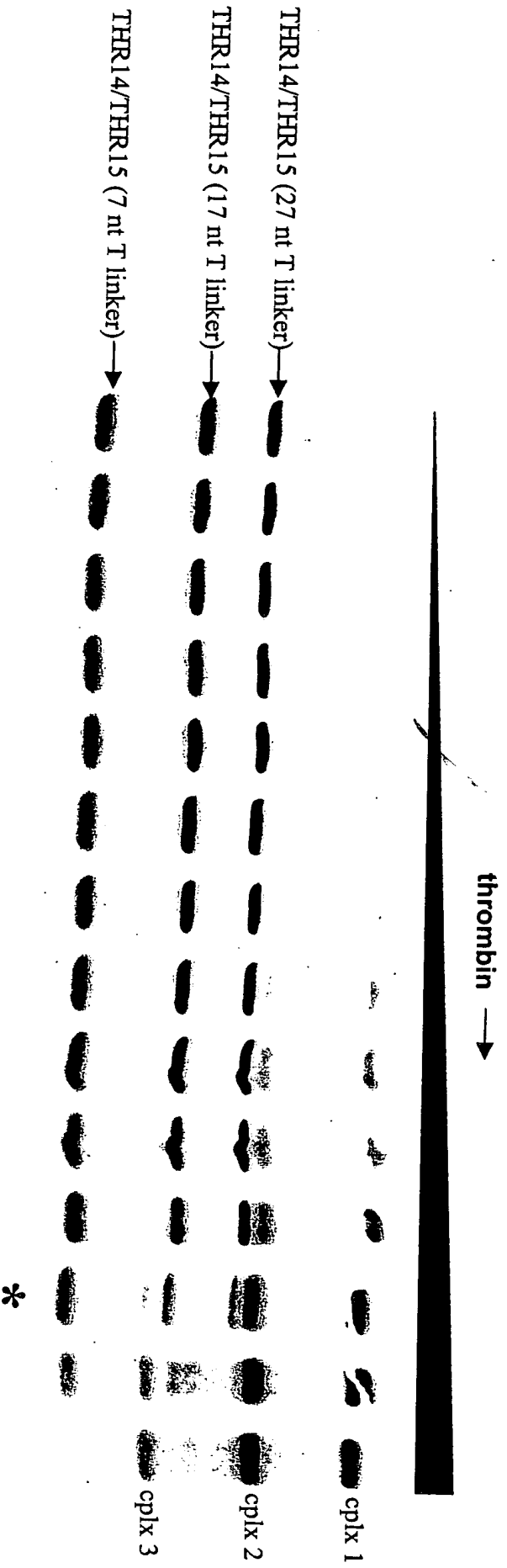
THR16
GGT TGG TGT GGT TGG TTT TTT TTT TTT TT CTG TCG TTA GTG
AAG GTT
THR17
AAC CTT CAC TAA CGA CAG TTT TTT TTT TTT TT AGT CCG TGG
TAG GGC AGG TTG GGG TGA CT



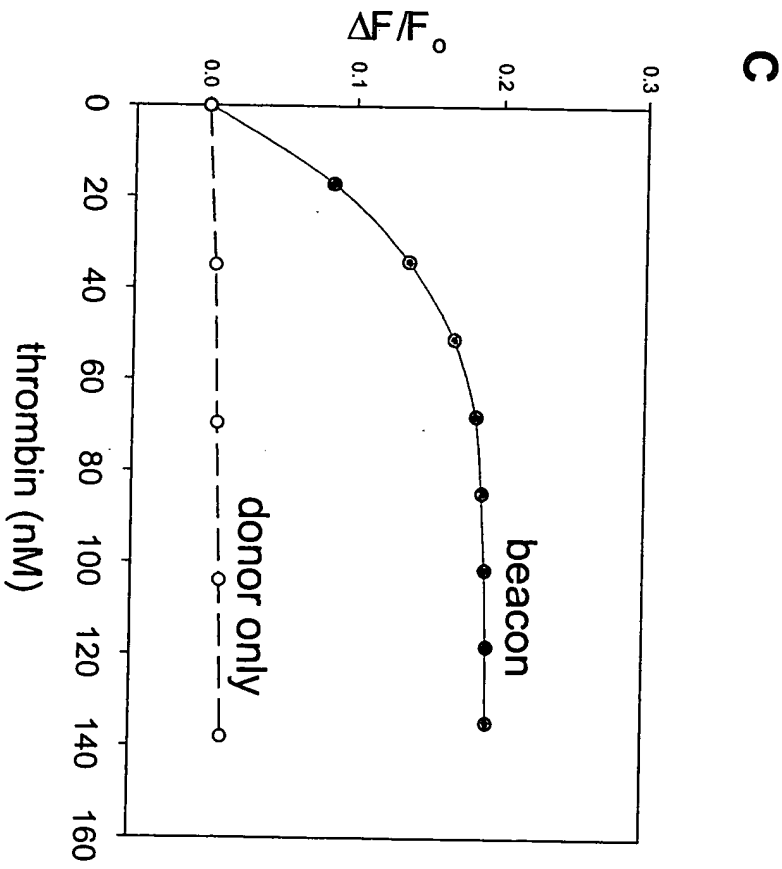
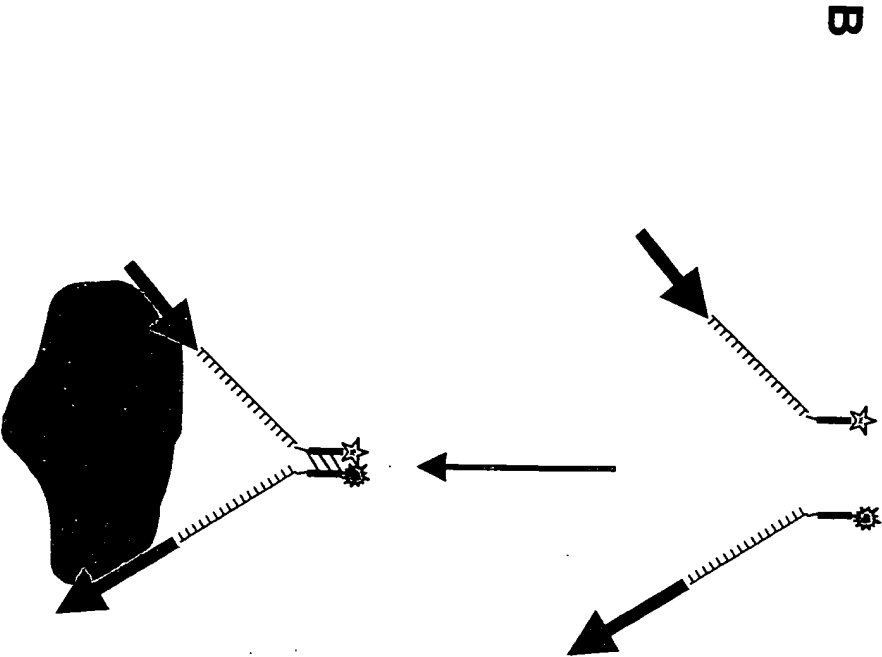
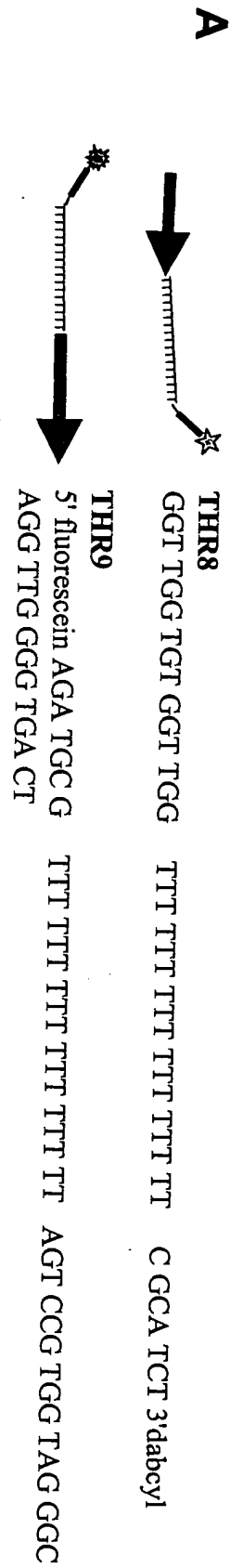
THR18
GGT TGG TGT GGT TGG TTT TTT TTT TTT TTT TTT TTT CTG TCG
TTA GTG AAG GTT
THR19
AAC CTT CAC TAA CGA CAG TTT TTT TTT TTT TTT TTT TTT AGT
CCG TGG TAG GGC AGG TTG GGG TGA CT

Fig. 11

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Figs. 12A-12C



Figs. 13A-13C

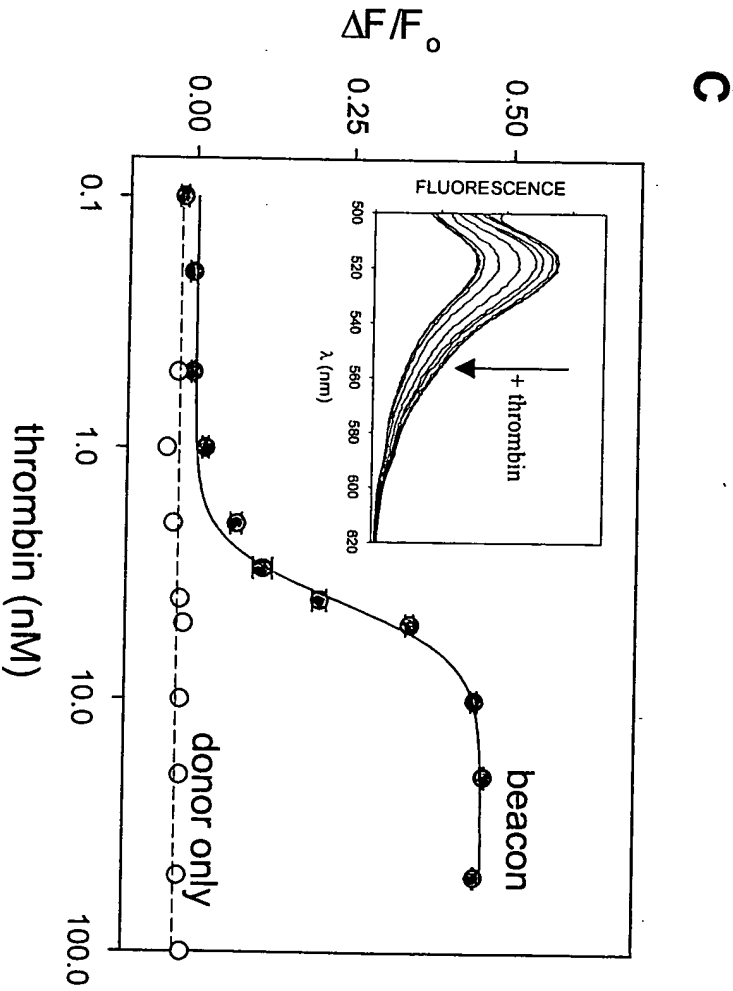
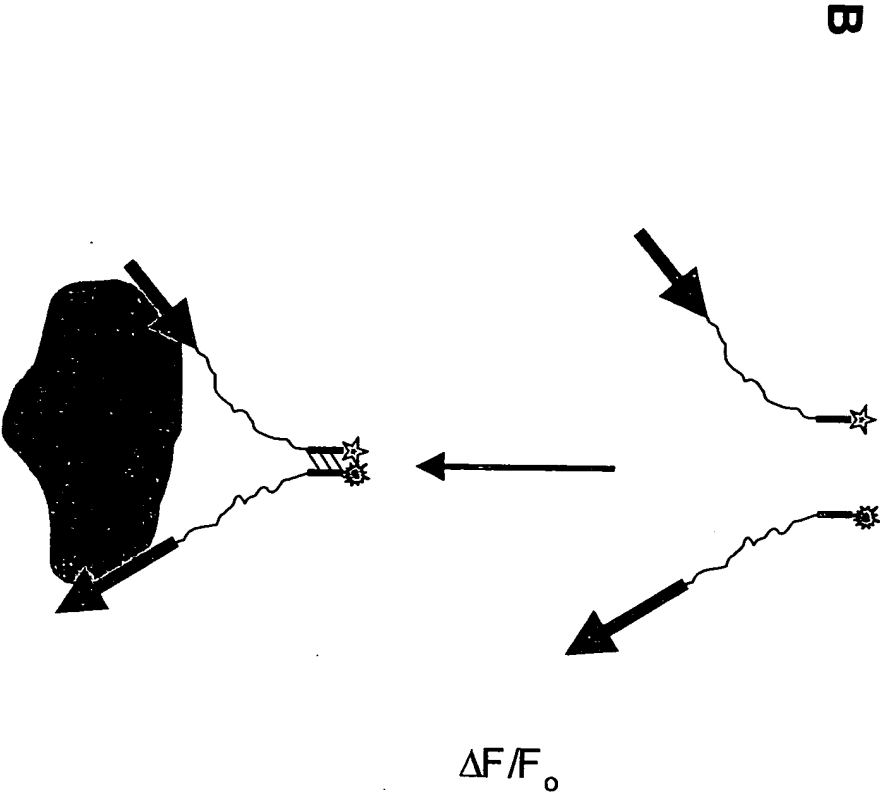
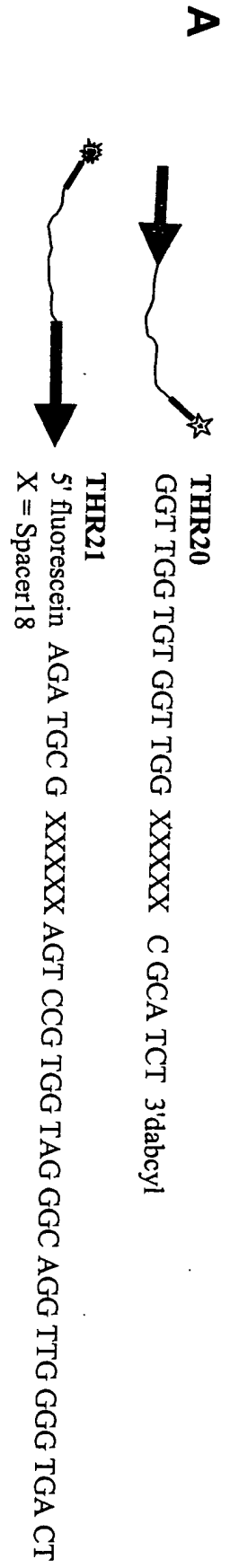
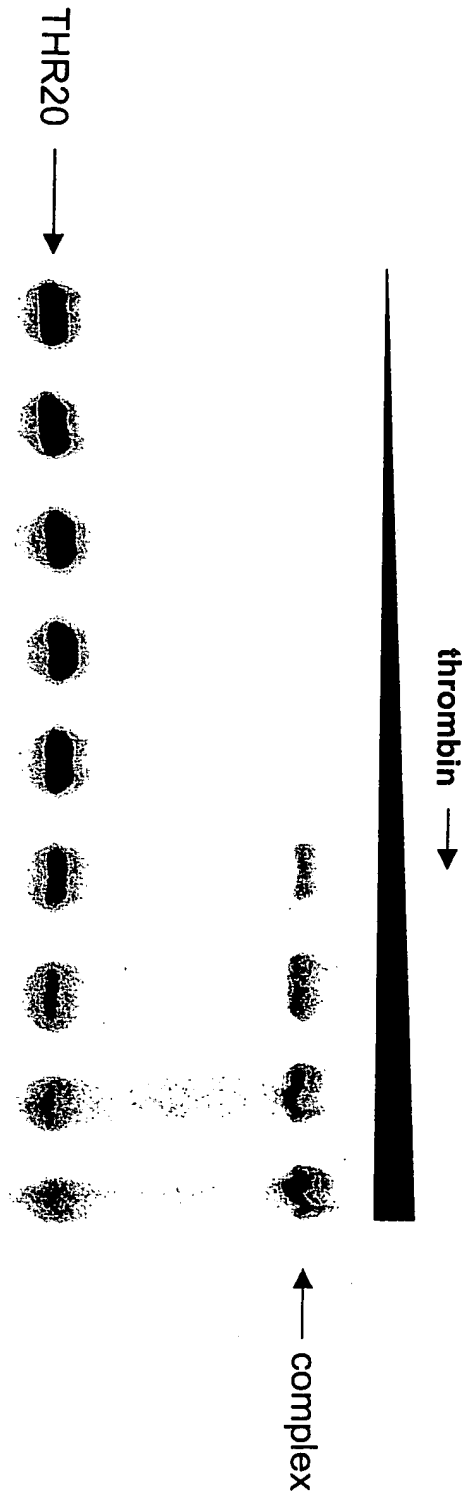
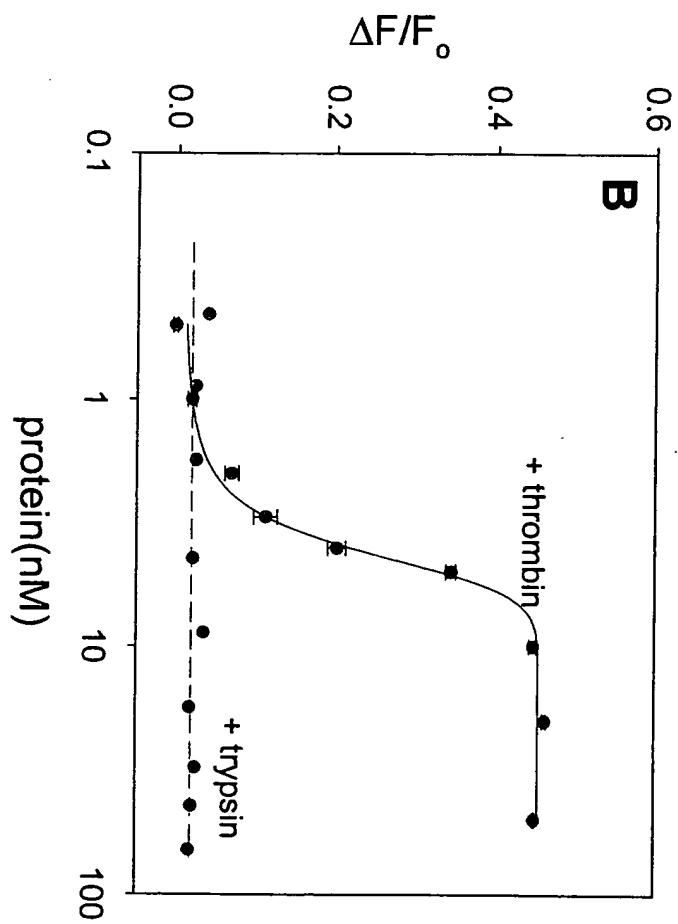
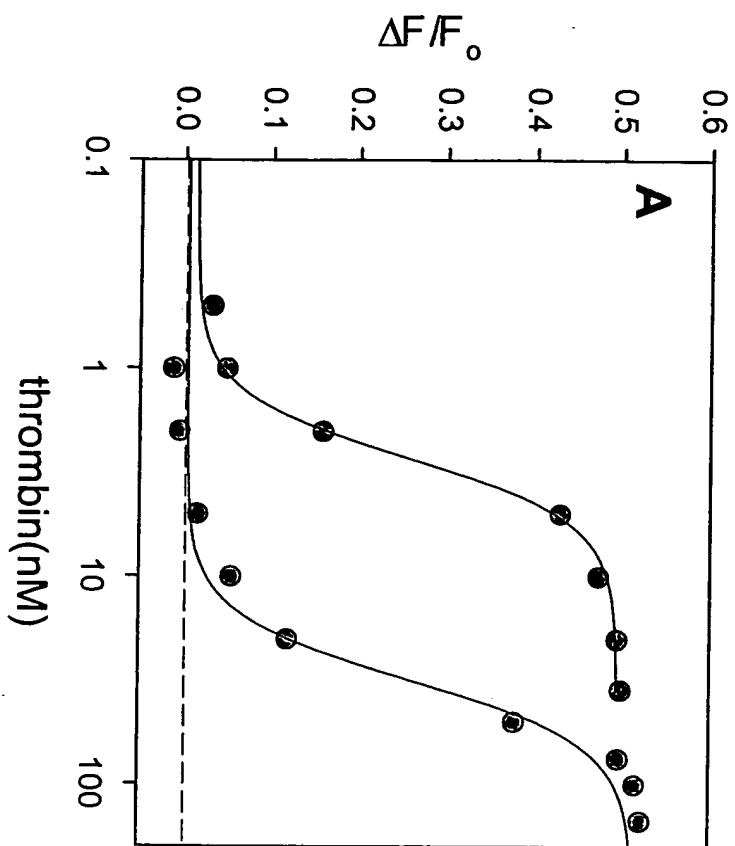


Fig. 14



Figs. 15A-15B



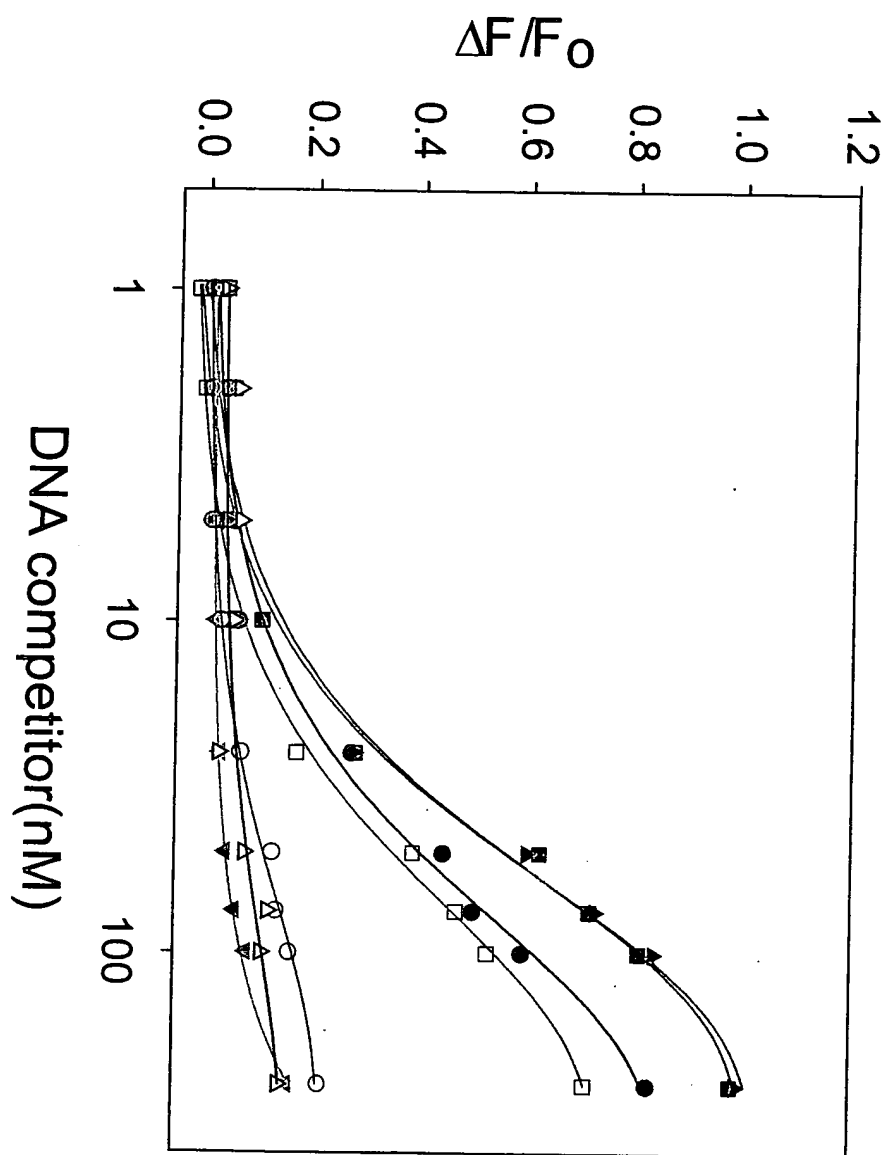
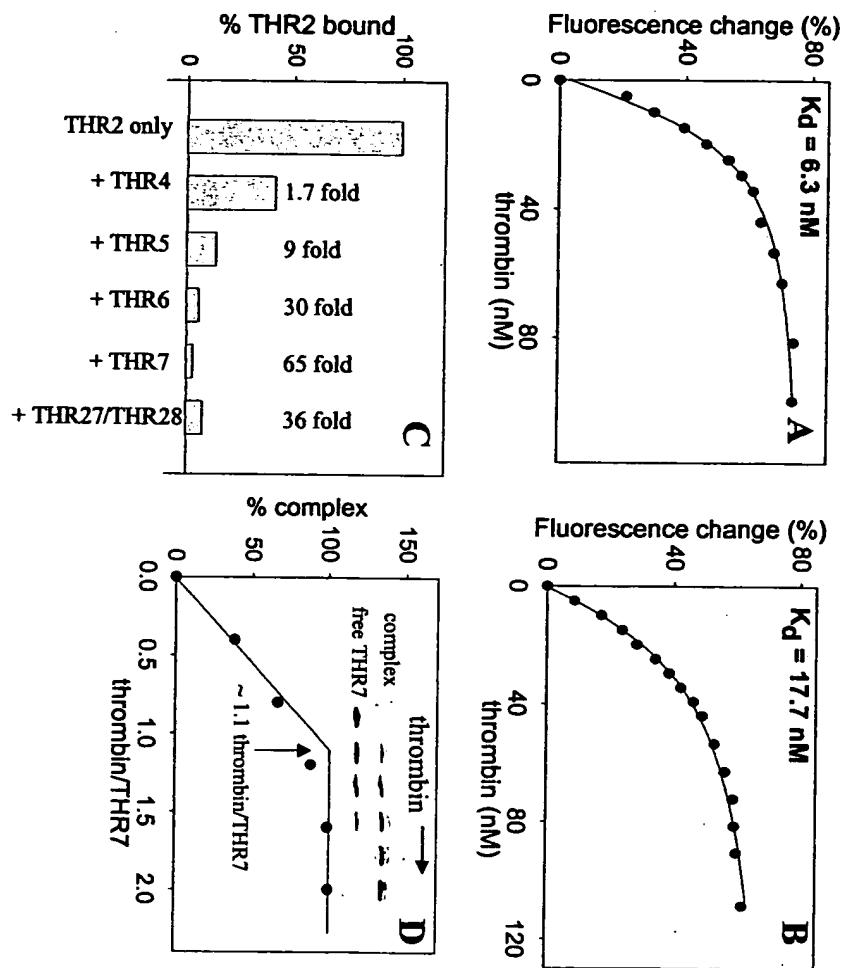


Fig. 16

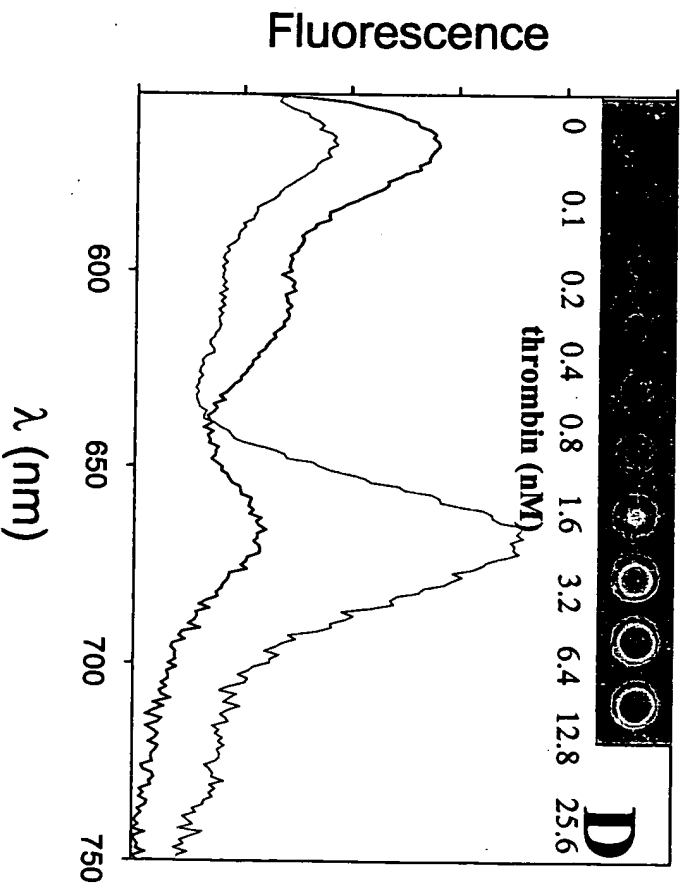
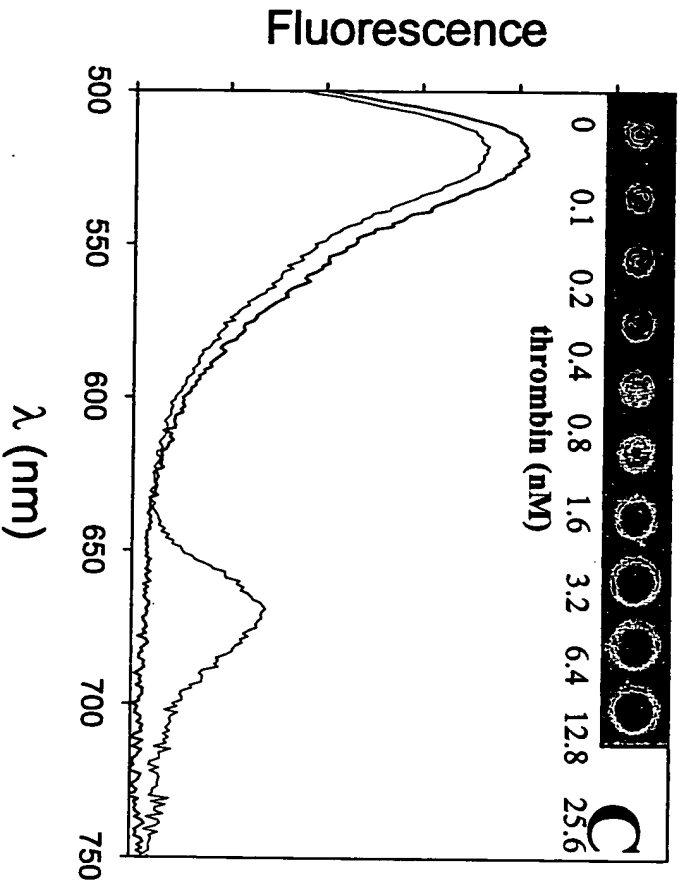
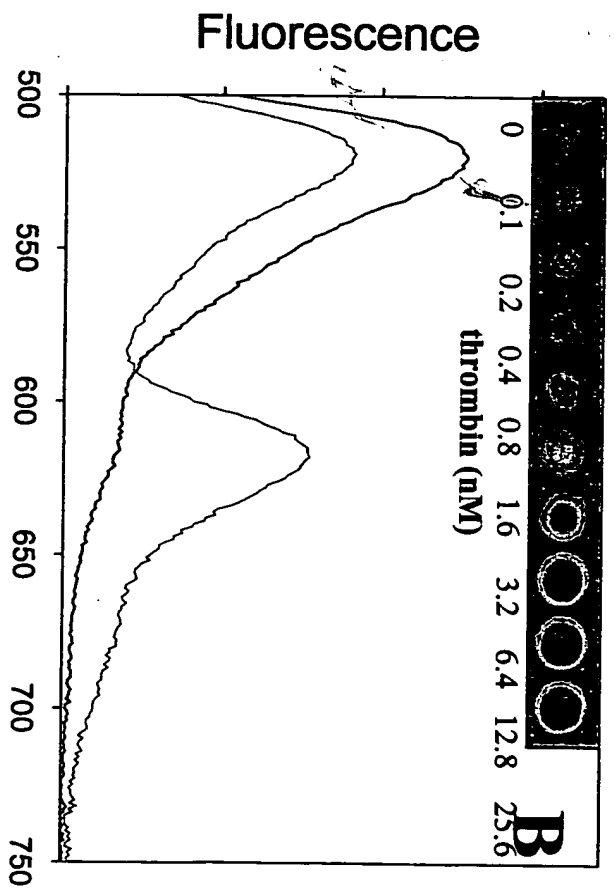
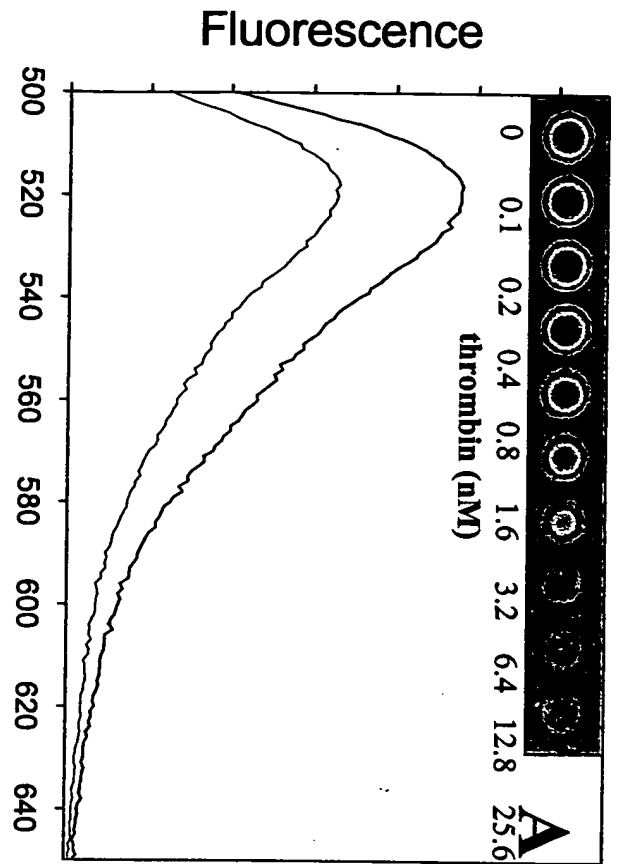
Figs. 17A-17D



Figs. 18A-18D

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Figs. 19A-19F

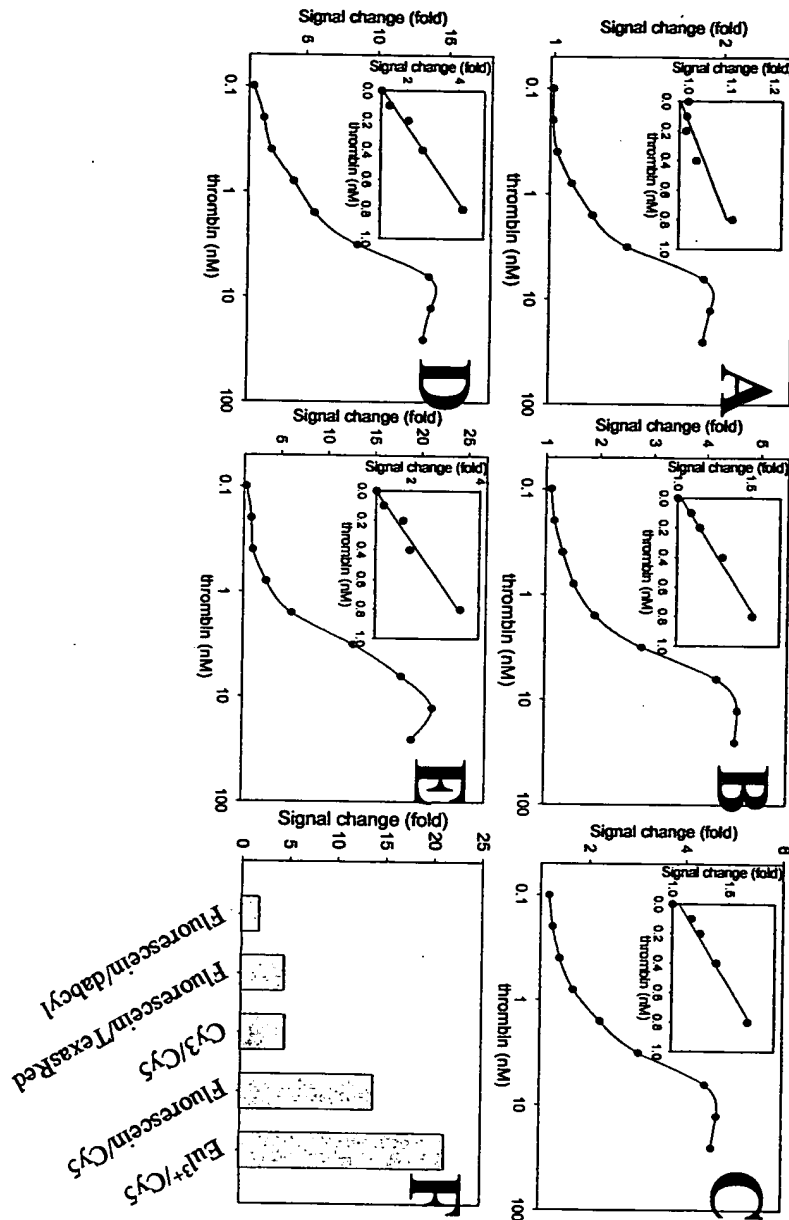
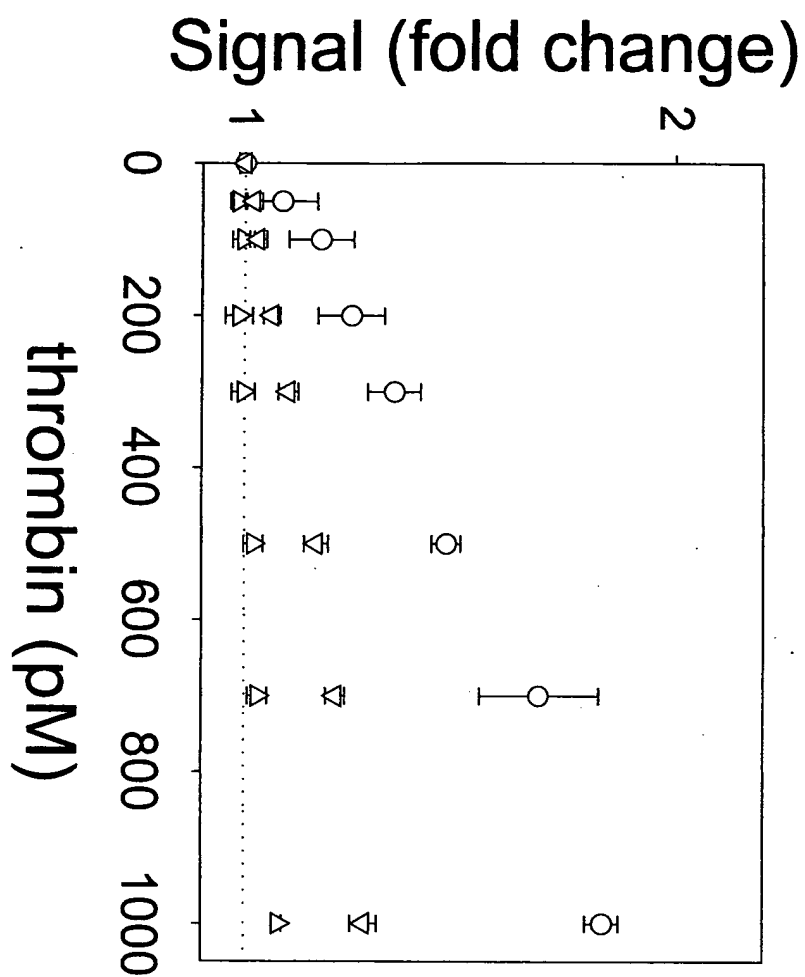


Fig. 20



Figs. 21A-21B

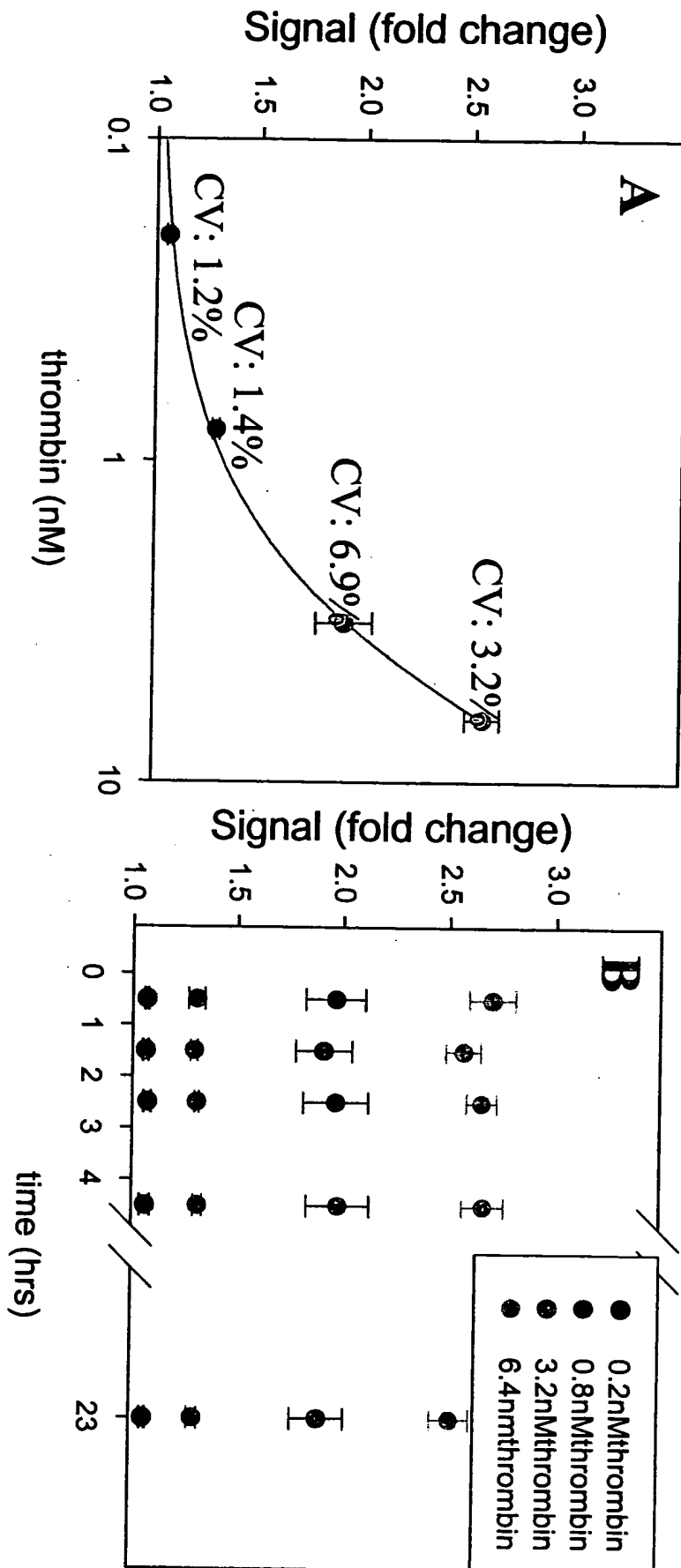
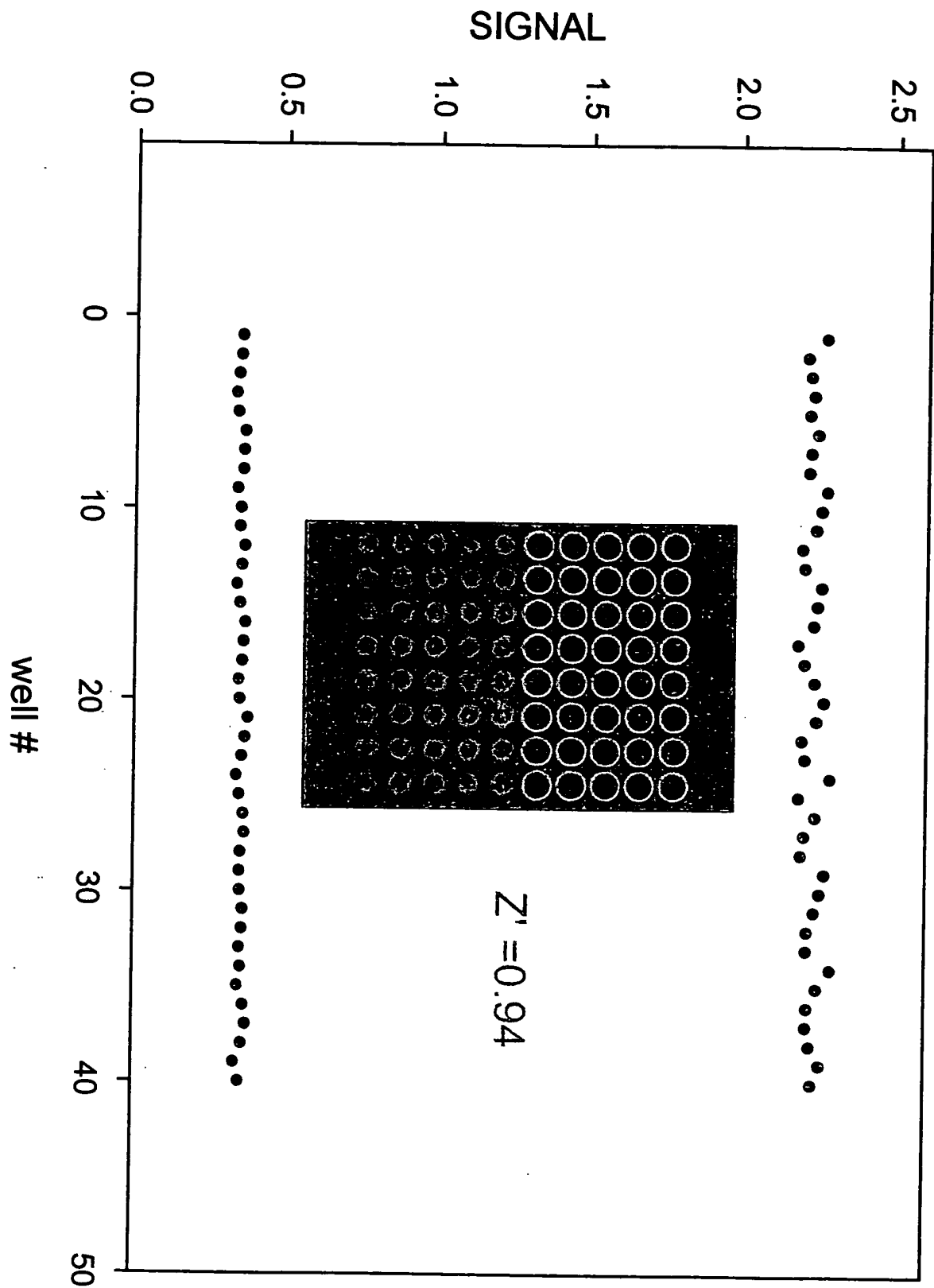


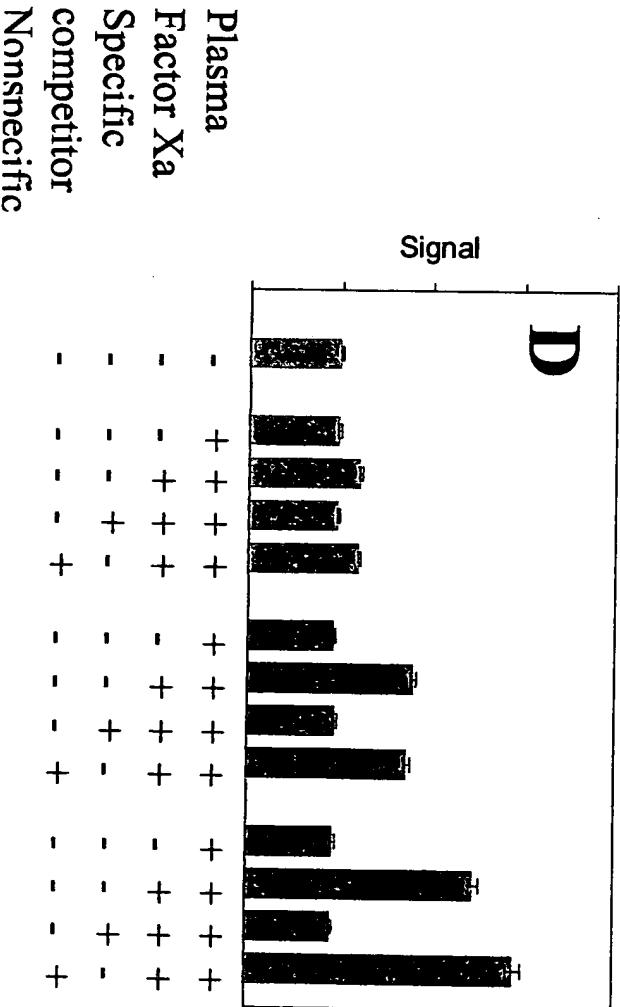
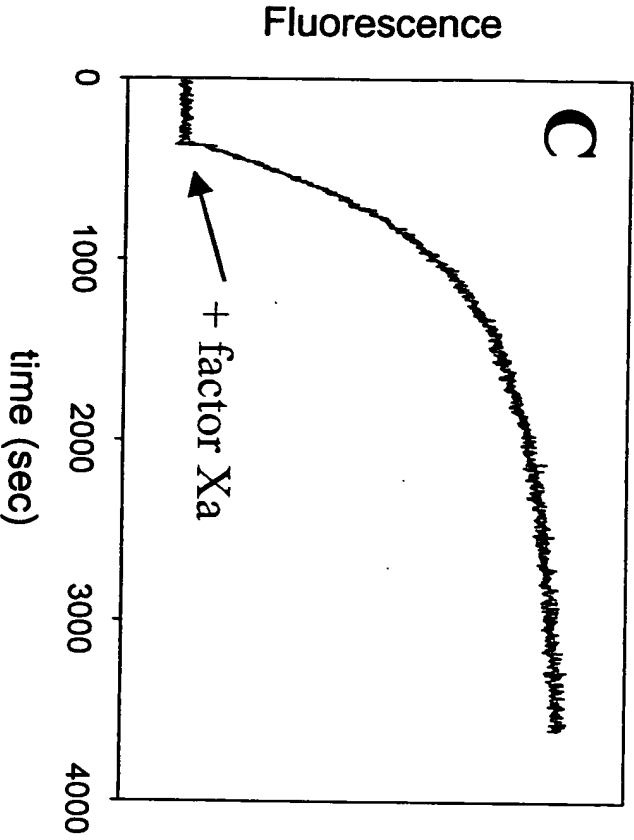
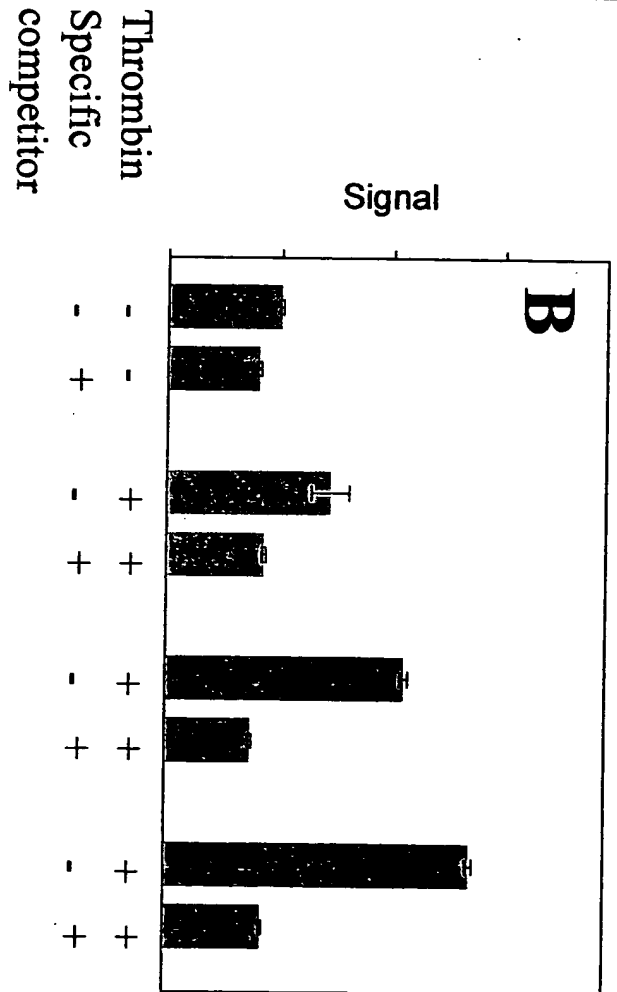
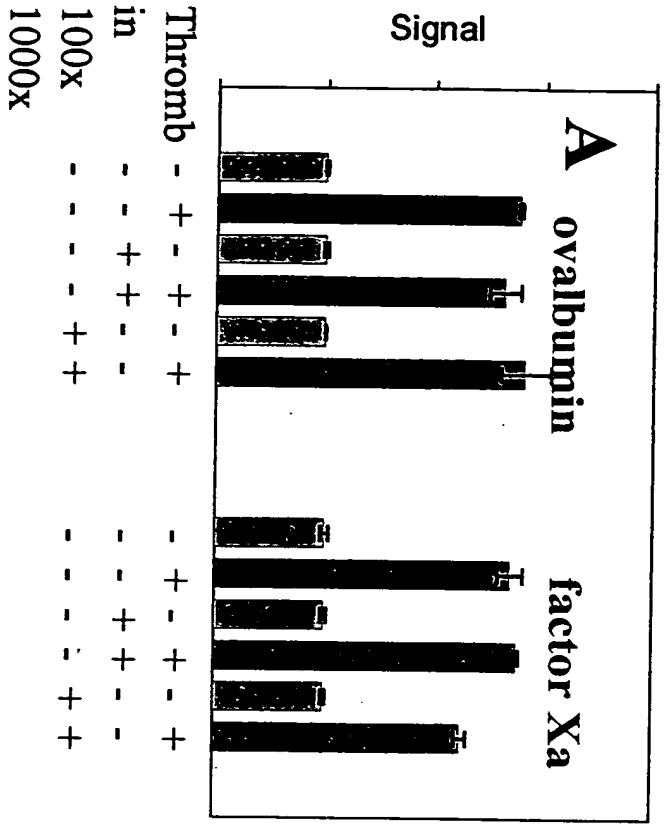
Fig. 22

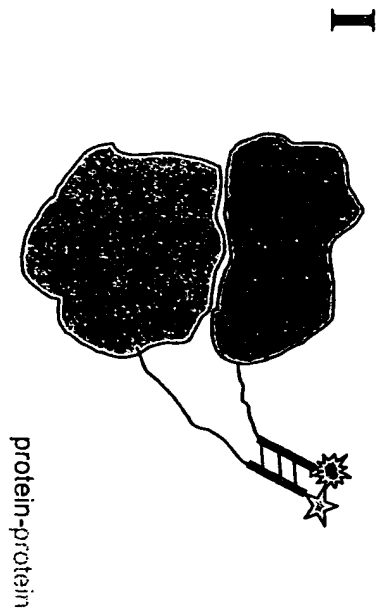
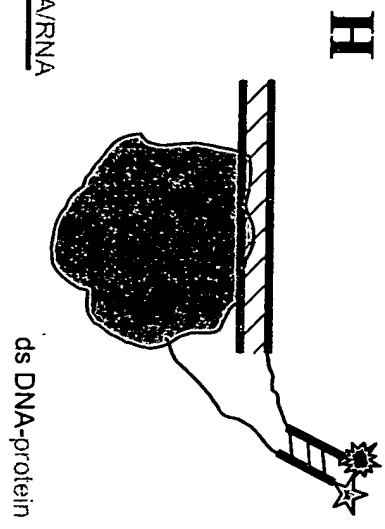
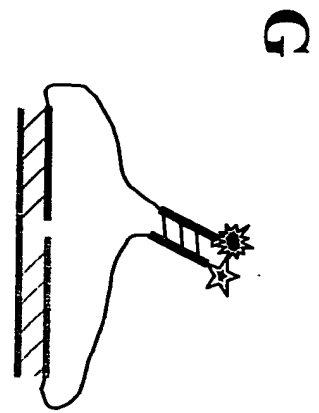
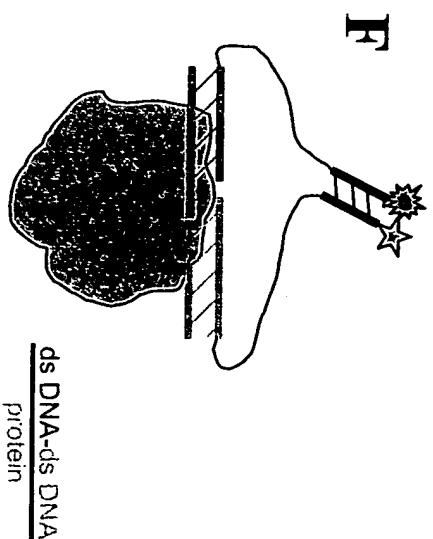
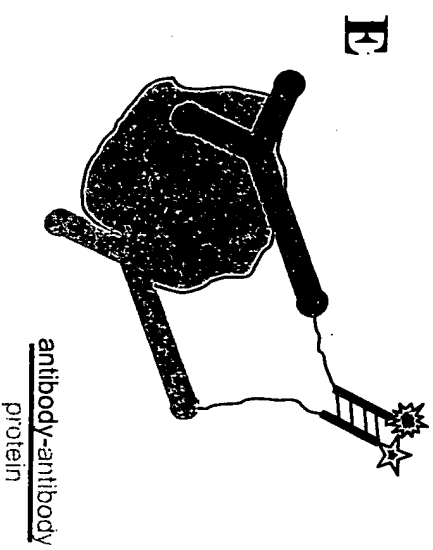
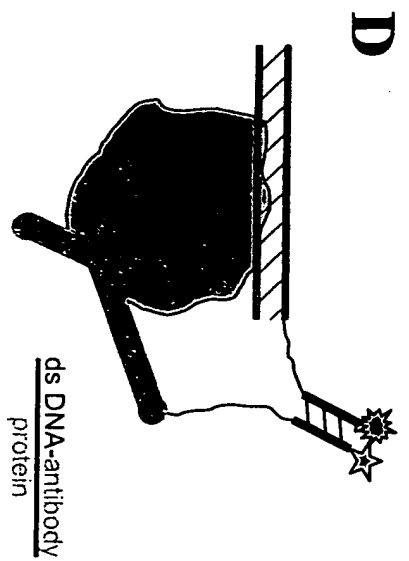
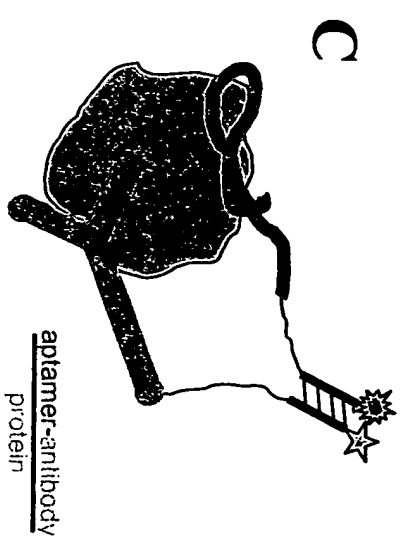
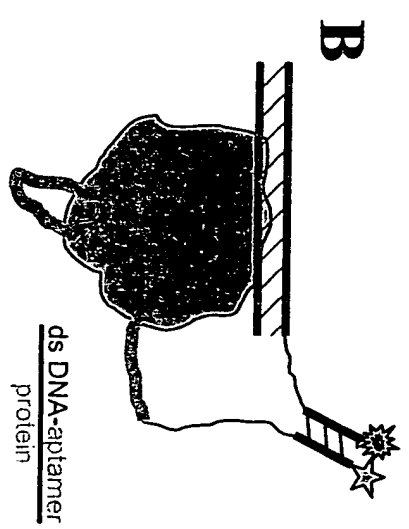
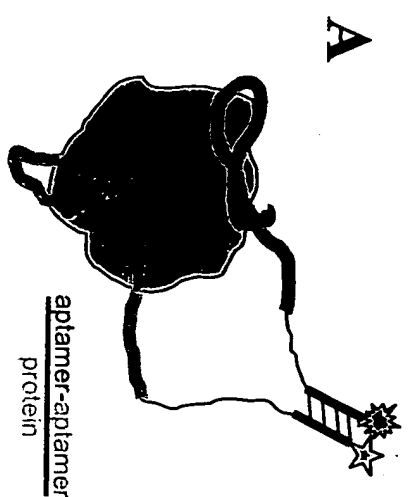


Figs. 23A-23D

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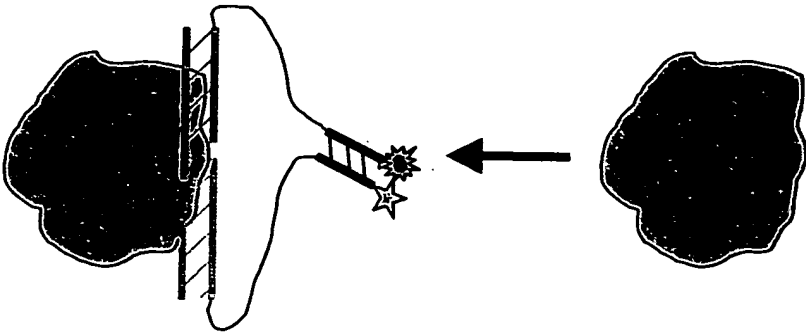
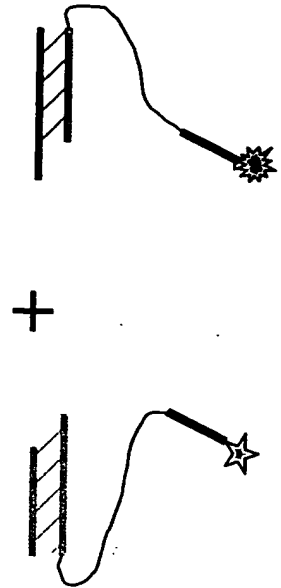




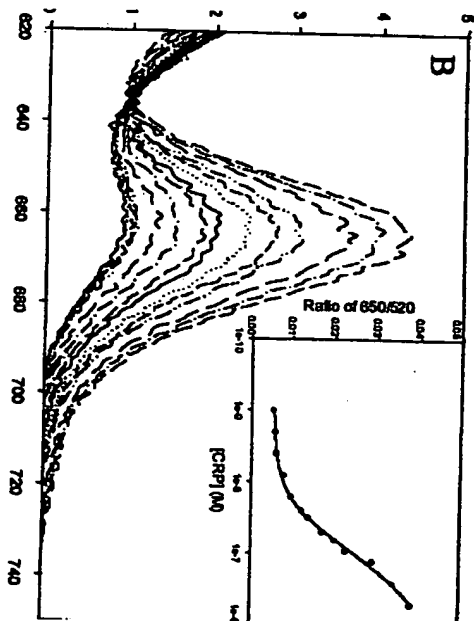
Figs. 24A-24I

Figs. 25A-25B

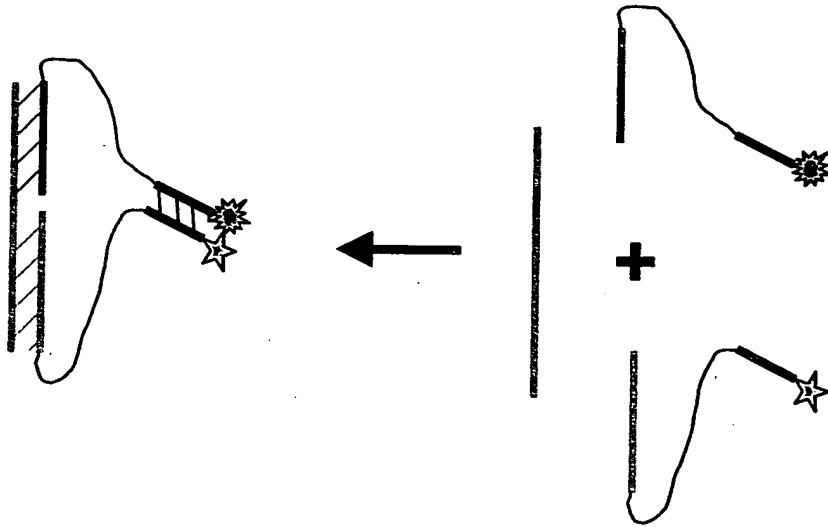
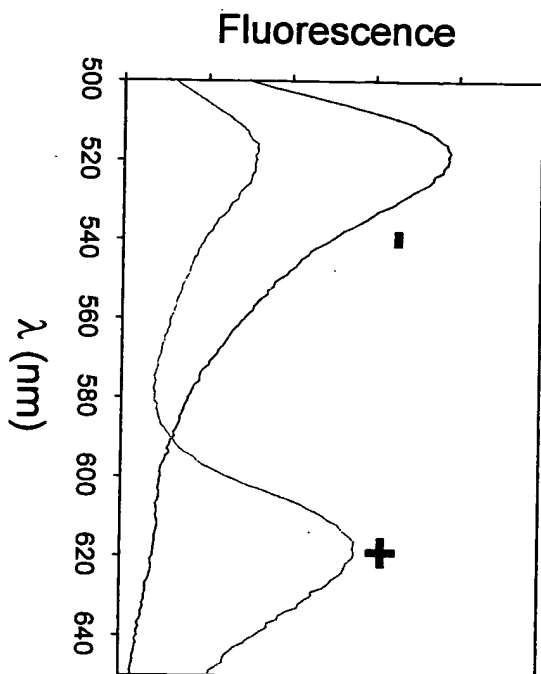
A



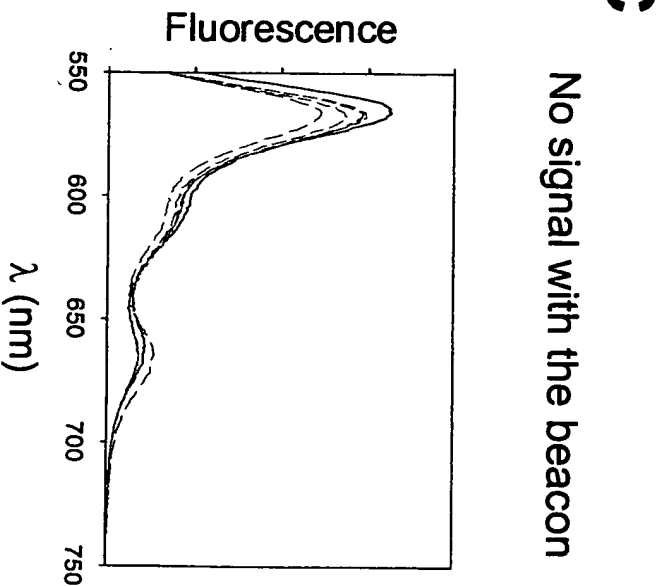
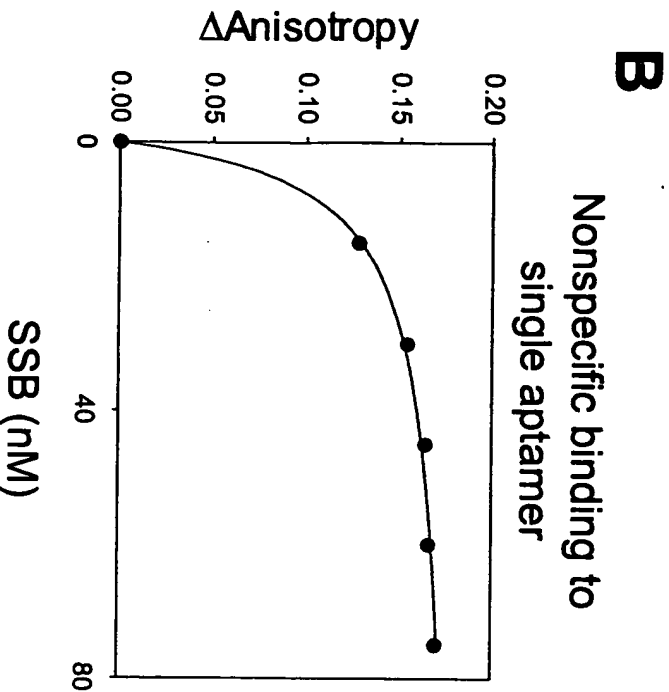
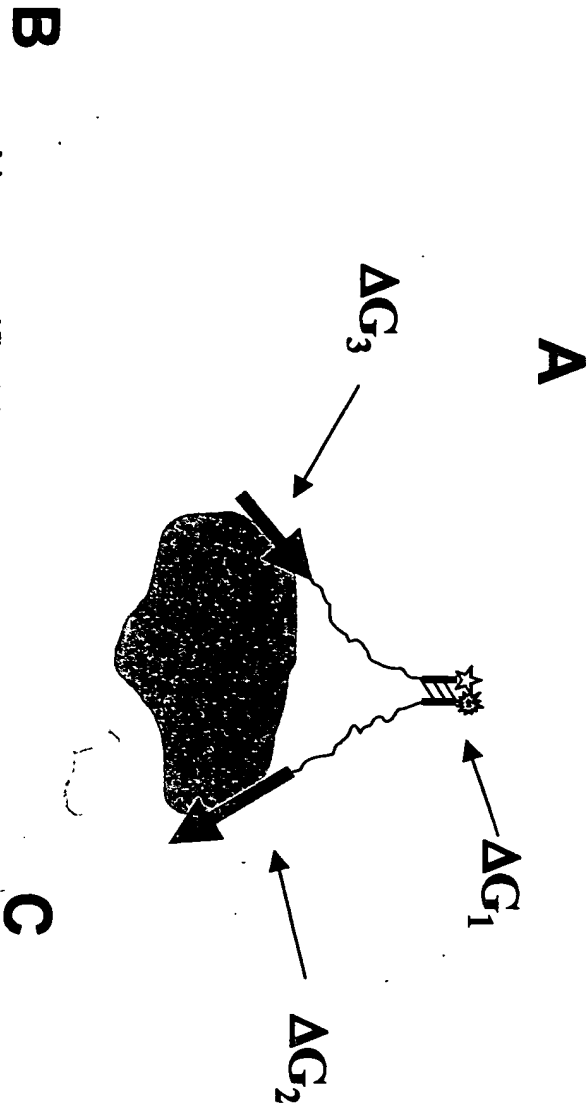
B



Figs. 26A-26B

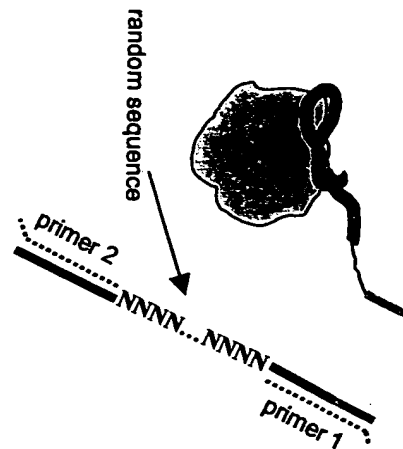
A**B**

Figs. 27A-27C

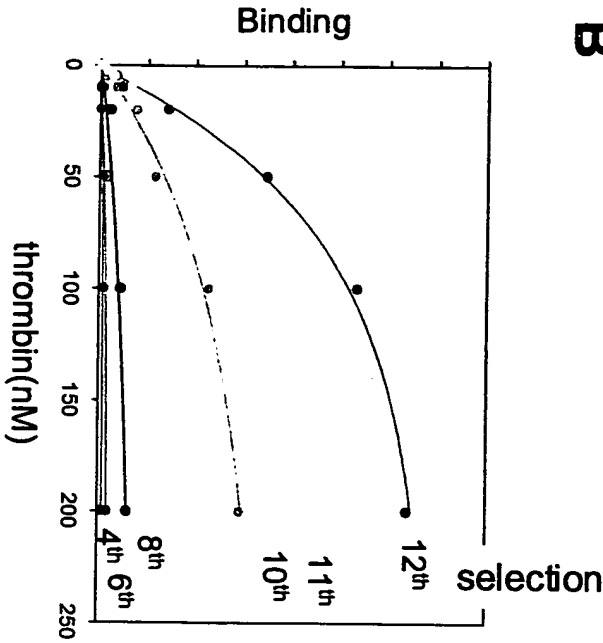


Figs. 28A-28C

A



B



C

```

clone1  --GACGCT-ATGAGCATAGCGTAAATGG-AGATTGGT-
clone9  --GACGCT-ATGAGCATAGCGTAAATGG-AGATTGGT-
clone7  --GACGCT-ATGAGCATAGCGTAAATGG-AGATTGGT-
clone12 --GACGCT-ATGAGCATAGCGTAAATGG-AGATTGGT-
clone2  --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone3  --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone4  --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone8  --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone23 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone11 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone32 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone33 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone29 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone31 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone5  --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone6  --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone35 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone10 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone34 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone20 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone21 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone24 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone26 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone13 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone15 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone16 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone19 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone25 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone17 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone14 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone27 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone28 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone30 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
clone18 --GATGCGTAAATGCTTAAAGGTAGGATATCG-
ruler   1.....10.....20.....30.....40.....50.....

```

Figs. 29A-29B

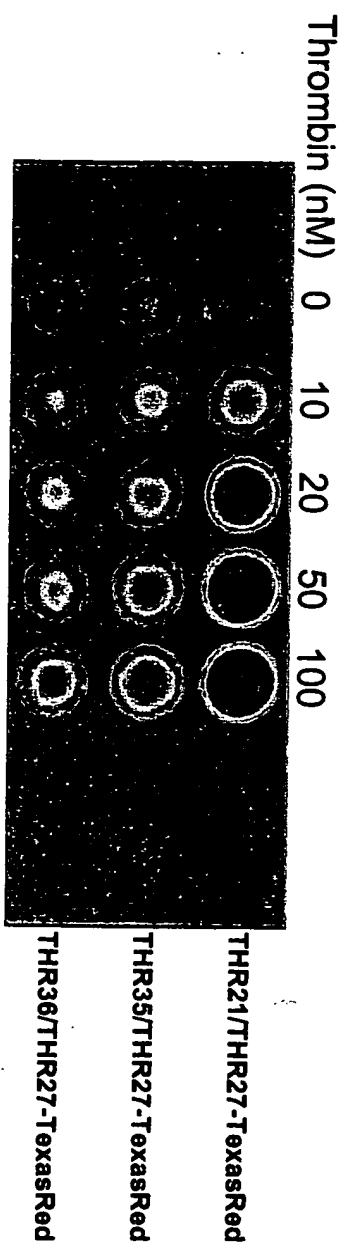
clones 20,21,24,26

5'fluoresceinAGATGCGXXXXX AG GTT GGG GGT ACT AGG TAT CAA TGG GTA GGG TGG TGT AACGC

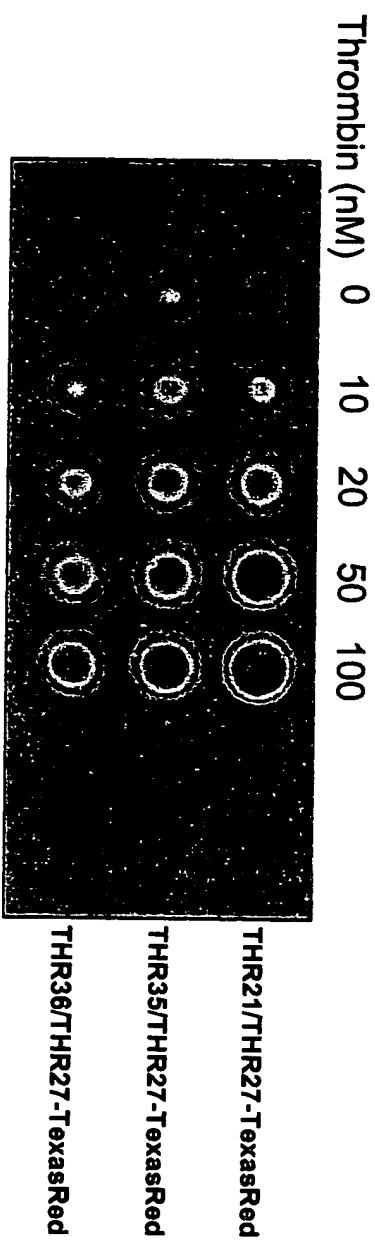
THR35

5'fluoresceinAGATGCGXXXXX GTG AAG GTT GGG GGT ACT AGG TAT CAA TGG GTA GGG TGG TGT AAC GCC ATA T THR36

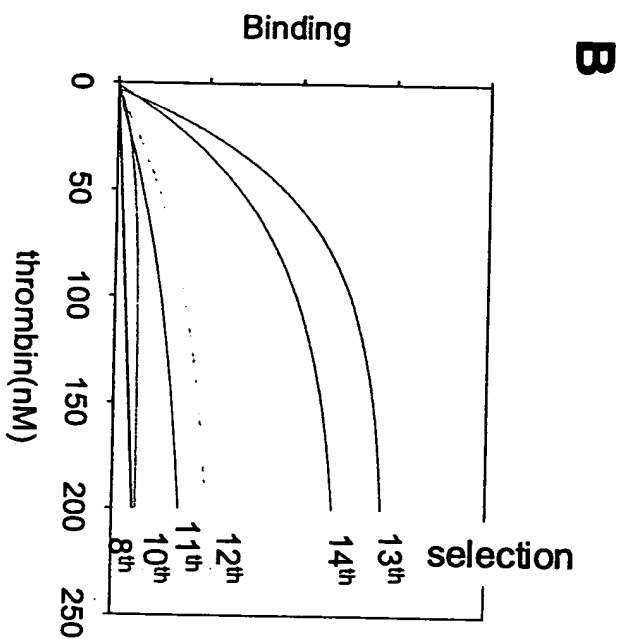
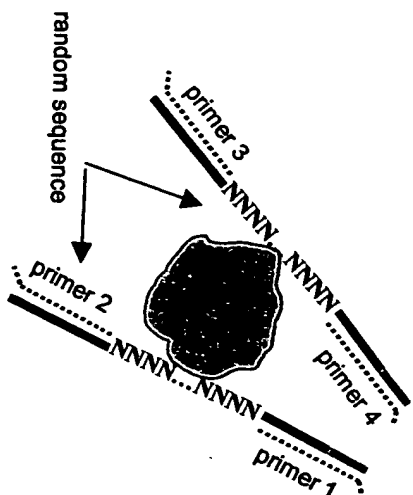
A



B

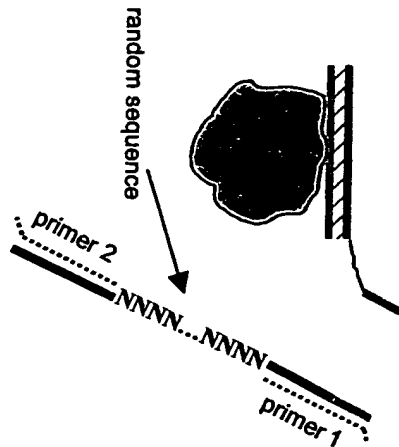
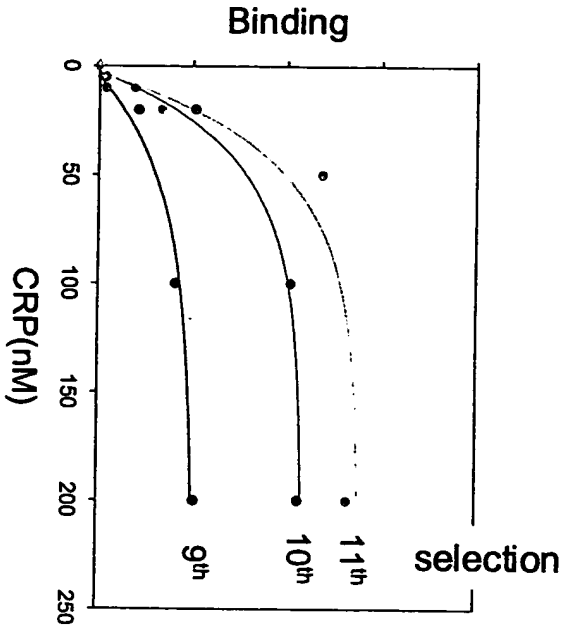


A



clone1-1	-----GCGTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone1-2	-----GCGTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone1-4	-----GCGTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone1-5	-----GCGTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone1-9	-----GCGTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-4	-----GCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-7	-----GCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-10	-----GCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-8	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-9	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-12	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-14	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone1-8	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-2	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone1-7	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-5	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-13	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-3	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-11	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-1	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone1-10	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone1-6	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone1-3	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
clone2-6	-----TACGATCGCTTACCGCTCGTCTGTAATACCGC-----ATTGCGCAT	30
ruler	1.....10.....20.....30.....40	

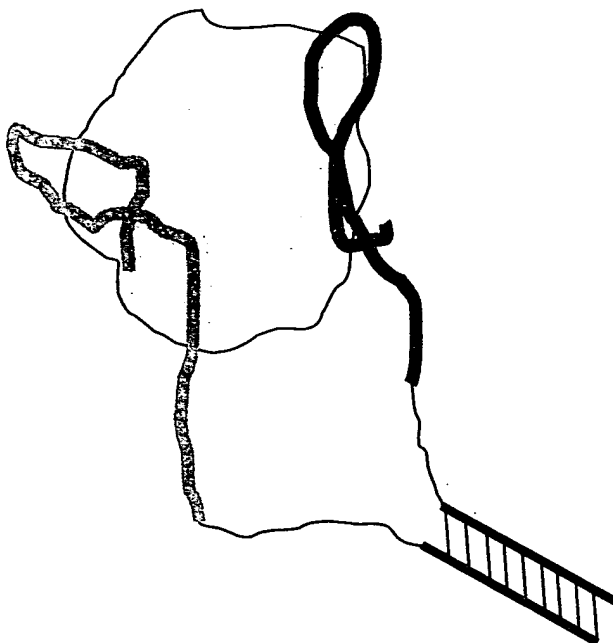
Figs. 31A-31C

A**B****C**

clone1 ATTCNAGGCTGCTGTCTTAAAGCTATCGACTTAC 33
 clone23 GAGGATTTAAAGCCATTCATCTAGATTTGCGCATTTG 33
 clone3 AAAGGATTCACCTAGAGTTGCGCGGATATCTTGG 33
 clone17 AGAGGCAATTCCTTGGATGCGGACCGGTTACTG 33
 clone15 CAGCATTCCTCAAGATGTCTAGCGGTTTCTTGG 33
 clone7 AGGGAATGCTTCTTCTCTT AGGACATACAGCAG 33
 clone20 AACGGGAAGCCATTCACC AATTTTATCGTCTGG 33
 clone5 GAAAGGAAGCCATTCACC AGAATGCGCGCTTCC 33
 clone10 ACAGACGCGCCCTAGTAACTATAC CATTGGCC 33
 clone13 GCAATATAGCACTTACCCCTTAACTCCATGCTTGG 33
 clone2 AGGGAAGGCGCATTCACAGGAGGCTCGCTTGG 33
 clone6 CAGCGGAGGCGCATTCAGATAGAGGATGATGCG 33
 clone9 CGATCAGACGCGGATTCAGATAGAGGATGATGCG 33
 clone16 CACAGAGAG -AGCCGACAC -ACAGATGAGCGCG 33
 clone21 AGGCGCGCA CAGATGTACAAATGATGAG 33
 clone4 GAGGATGTGCGAATCTGATGATGATGAG -GTTG 33
 clone22 AGCGGGAATGAGAACTATCGGACATTCGTCG 33
 clone8 AATTAAGAGGCA TCAATAGGATCGTATGAGCGCG 33
 clone14 GCAAGGAAATTAAGAGGCGATTCAGGCGCTTGG 33
 clone18 ACCGACATTAAGGCGATTCAGGCGCTTGG 33
 clone12 ATGAGGCAAGGAGGACCTTCTGAGGCTTGG 33
 clone19 CAGTGGATCGGCTTCAAGCGGATGATGATGAG 33
 clone11 ATAGCTTCTCAGCGAAGGATGATGATGAG 33
 ruler 1 10 20 30 40 50 33

Figs. 32A-32B

A



B

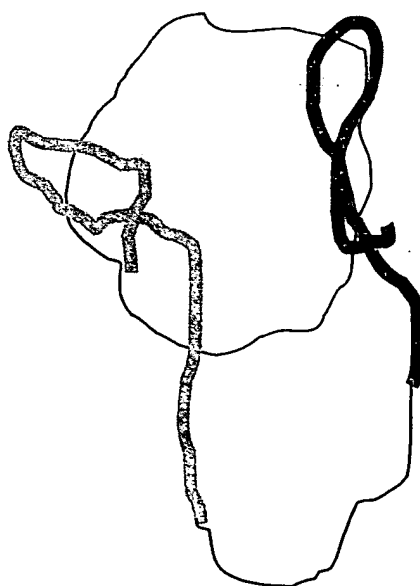
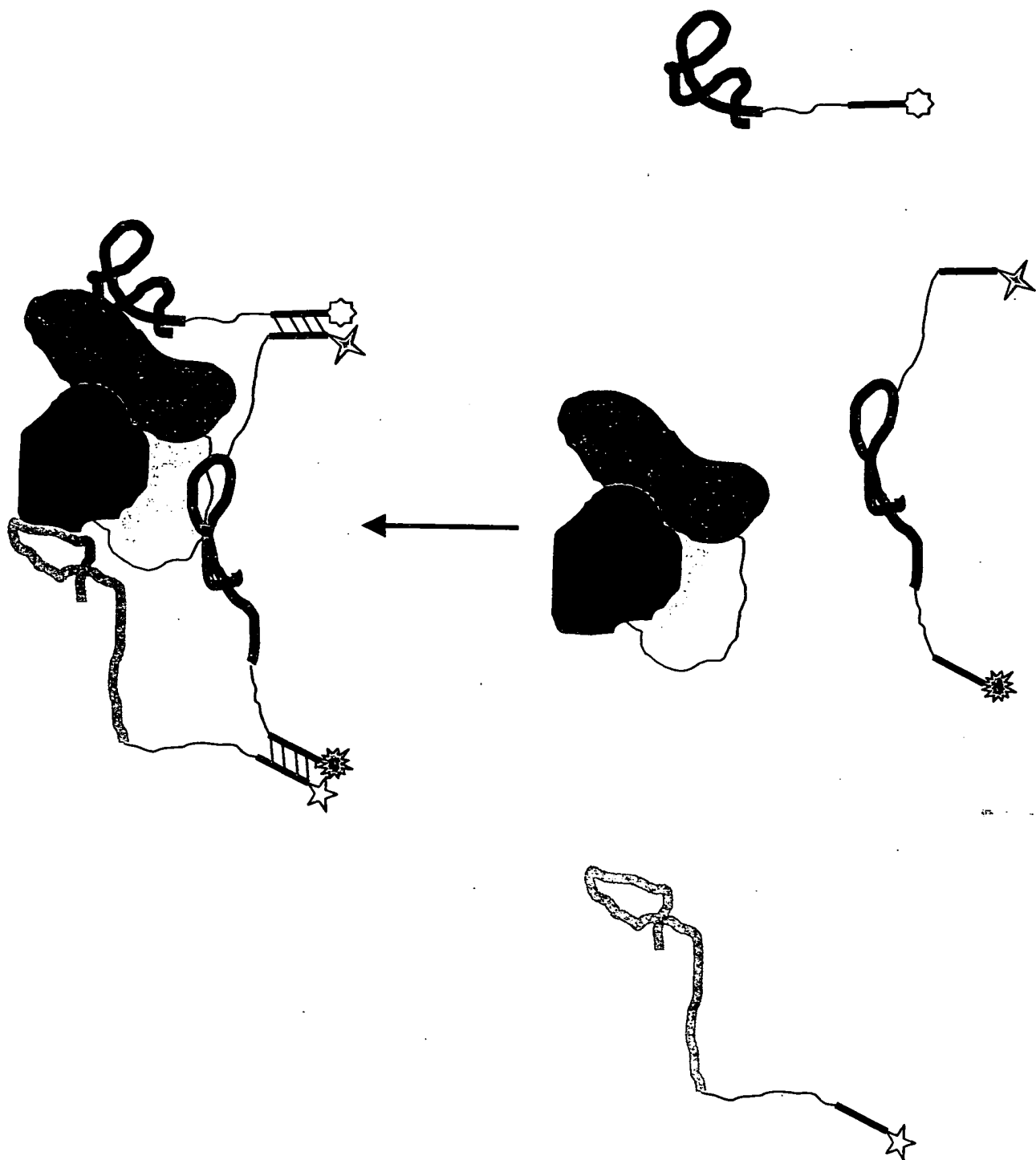


Fig 33



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